



THE 1996 GAME OF THE YEAR AWARDS

PREMIERE
ISSUE

The Ultimate Gaming Magazine

July 1997

COMPUTER GAME™

ENTERTAINMENT

iF-22 Raptor

I-Magic's
Air Dominance
Fighter

Over 30 In-Depth Reviews & Previews

G-NOME ■ iM1A2 Abrams ■ Dark Reign ■ The Arrival

Dominion ■ 7TH Legion ■ Army Men ■ Demon Isle ■ Net Storm

City of Lost Children ■ X-COM: Apocalypse

Magic: The Gathering ■ WAR, Inc. ■ Interstate '76

Imperialism ■ Man of War ■ Outpost 2 ■ Warlords III

M/G: Battlemage ■ Great Battles of Alexander

■ Micro League Pro Football ■ Animal Planet
■ and much more!

July 97 USA \$7.99

Canada \$10.99



0 71896 48336 9

688[1] HUNTER/KILLER

JANE'S GOES AQUATIC

DOES IT
RUN SILENT,
OR RUN
DEEP?

Welcome to
the new landscape
of War.

CAVEDOG ENTERTAINMENT™
PRESENTS...

TOTAL ANNIHILATION™

The New Landscape Of War

In a distant part of the Galaxy, the Core and the Arm continue a thousand year battle over long forgotten ideals, destroying everything in their path...

TOTAL ANNIHILATION is a real-time war game featuring true 3D terrain and run-time generated 3D units. Tanks drive up and over hills, tilting and rocking with each bump in the landscape and impact with enemy weapons. Battle on diverse landscapes, including lava worlds, ice planets, desert valleys, alien tundra, towering mountain peaks and vast island-dotted oceans. Build defenses high in the hills for a better view and a better shot. Giant Bertha cannons pound the enemy from across the world. Planes bank and dive in intense air-to-air combat. Amphibious tanks drive into and dive under water for surprise attacks. Download new reinforcements from the web and swarm the enemy with hundreds of ever evolving units.

TOTAL ANNIHILATION'S 3D landscape is a revolution that demands deeper strategy and generates more realistic game play. Mobilize your forces and experience the new landscape of war!

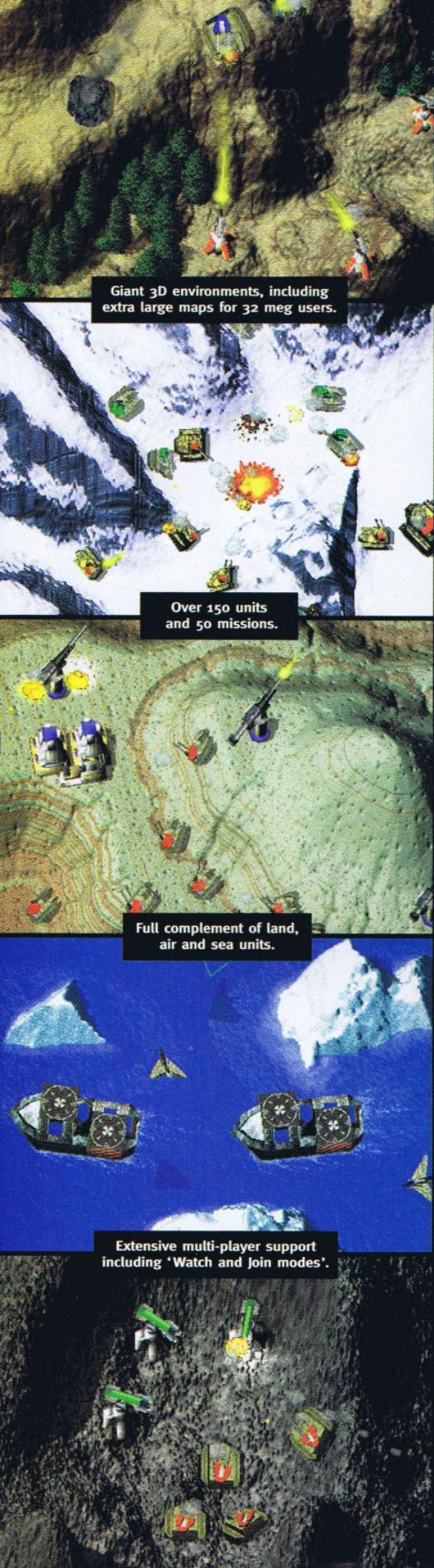


www.cavedog.com



©1997 Humongous Entertainment, Inc. All rights reserved. Created and Published by Cavedog Entertainment, a division of Humongous Entertainment, Inc. Distributed by GT Interactive Software Corp. Cavedog Entertainment™ and Total Annihilation™ are trademarks of Humongous Entertainment, Inc. GT™ is a trademark and the GT Logo® is a registered trademark of GT Interactive Software Corp. Microsoft® and Windows® are registered trademarks of Microsoft Corporation. All other trademarks are the property of their respective companies.

a GT Interactive company



Giant 3D environments, including extra large maps for 32 meg users.

Over 150 units and 50 missions.

Full complement of land, air and sea units.

Extensive multi-player support including 'Watch and Join modes'.

An aerial, isometric view of a 3D battlefield. The terrain is dark green and hilly, with a visible grid overlay. Various military units are scattered across the landscape, including tanks, infantry, and aircraft. Several bright yellow and orange explosions are visible, indicating active combat. The scene is set in a dense, forested environment with rolling hills and valleys.

Blast the opposition into smoking fragments, leaving the world scattered with burnt out wreckage.

Take out a radar tower to cripple the enemy's intelligence.

Control the high ground.

True 3D terrain.

Send in high altitude bombers to take out enemy encampments.



Launch an invasion
from the sea.

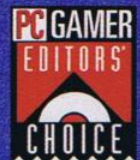
The forest provides perfect
cover for surprise invasions.

Bombard the enemy from
the safety of the sea.

3D tanks move smoothly
over the hill as they
move into position.

The Ultimate in Civil War gaming!

Battleground
Series Awards



"A brilliant design...I just can't stop playing!"

-Johnny Wilson, Computer Gaming World-

"One of the best renditions of a battlefield ever seen in a PC game!"

-Phil Thé, Computer Games Strategy Plus-

"One of the best wargame series we've seen in years!"

-Computer & Net Player-

"No Civil War fan will be disappointed!"

-William Trotter, PC Gamer-

**Includes the battles
of 1st Manassas and
2nd Manassas!**

BULL RUN

BATTLEGROUND 7™

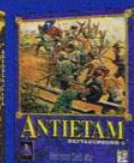
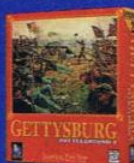


TALONSOFT

**Excellence in
Software!**

Available at fine Software retailers World wide!
To order direct call 1-800-211-6504 (orders only please)
or visit our web site at www.talonsoft.com

©Copyright 1995, 1996, 1997 TalonSoft Inc. P.O. Box 632 Forest Hill, MD 21050
Painting by: Dale Gallon Historical Art, Gettysburg, PA 17325



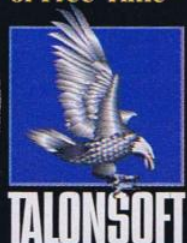
Pardon me, is this the road to Moscow?



NAPOLEON -IN- RUSSIA™

BATTLEGROUND 6

Diabolical
Carnivores
of Free Time™



TalonSoft's award winning Battleground® series returns to the era of Napoleon and the titanic clash with General Kutuzov and his glorious Russian Army of the Czar at Borodino, September 7, 1812. Can you push the Old Guard forward and march on Moscow?

Excellence in
Software!

www.talonsoft.com Available at fine Software retailers World Wide!
© Copyright 1995,1996,1997 TalonSoft Inc. P.O. Box 632 Forest Hill, MD 21050 (410) 933-9191



The Ultimate Gaming Magazine

COMPUTER GAME™ ENTERTAINMENT

COVER STORY

iF-22 Raptor:

Enter the dangerous and intimidating world of high-tech aerial combat, where even the hint of detection can spell disaster. Sleek and super-stealthy, find out why the new US air dominance fighter is determined to rule the skies well into the 21st Century. Finally, judge for yourself if Interactive Magic's simulation is suited to the task of conquering the cyber-skies.

Page **24**

FEATURES

688(I) Hunter/Killer 33

The ocean can be a cruel, inhospitable realm oftentimes serving as man's final, if fitting, resting place. Somewhere under the wind-whipped waves sails the submarine; both hunter and the hunted. Electronic Arts teams up with Jane's and Sonalyst, Inc. to produce the latest, and perhaps greatest, attack submarine simulation ever to set sail.

Still Battle's Call 47

In an age of "follow-the-leader," both *Command & Conquer* and *Warcraft* have led the real-time strategy gaming pack. Spawning a brood of next generation wannabees, we've profiled three of the most important titles that'll soon be vying for your real-time gaming dollars.

The '96 CGE Awards 54

Our debut issue wouldn't be complete if we didn't pay homage to the best games of '96. See if you concur with our writers as they, and they alone, select the champions and near-winners.

DEPARTMENTS

Editorial	10
CD-ROM Instructions	12
News	16
How We Review Games	100

COLUMNS

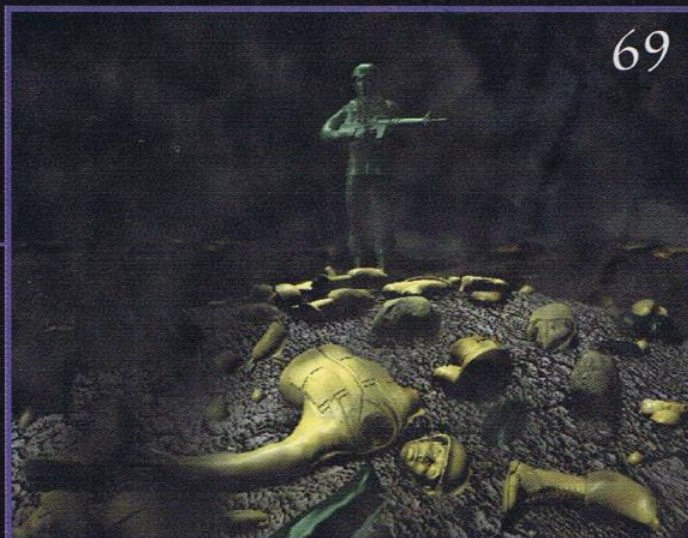
Strategy/Wargames	88
Simulations	90
Action	92
Adventures/Role-Playing	94
Sports	96
Edutainment	98

HINTS & TIPS

Firepower	128
-----------	-----

PREVIEWS

Warlords III	60
WAR, Inc.	63
X-Com: Apocalypse	66
Army Men	69
Demon Isle	72
Outpost 2	74
Imperialism	76
Great Battles of Alexander	78
Man of War	80
Net Storm	81
Extreme Assault	86



69

REVIEWS

Strategy/ Wargames

Magic the Gathering (MPS)	102
Magic the Gathering (Acclaim)	104
Marble Drop	106

Action

G-Nome	107
G-Nome Rebuttal	109

Simulations

iM1A2 Abrams	110
Air Warrior II	112
Flying Corps	114

Adventure /CRPG

Interstate '76	116
Callahan's Crosstime Saloon	118
The Arrival	120
The City of Lost Children	122
The City of Lost Children Rebuttal	124

Edutainment

The Time Warp of Dr. Brain	125
----------------------------	-----

Sports

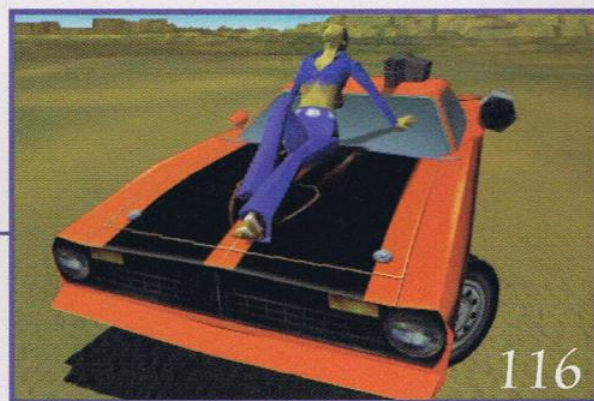
MicroLeague Football '97	126
--------------------------	-----

Multimedia

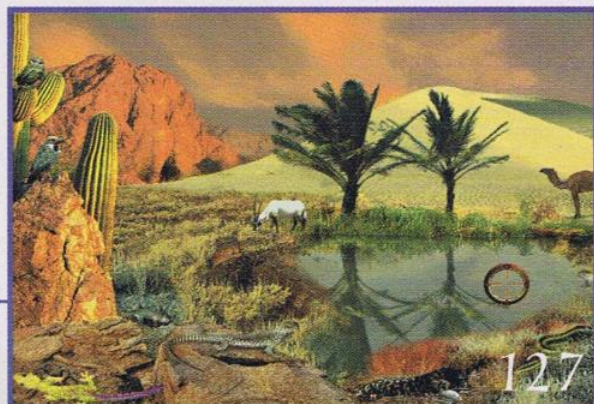
Animal World	127
--------------	-----



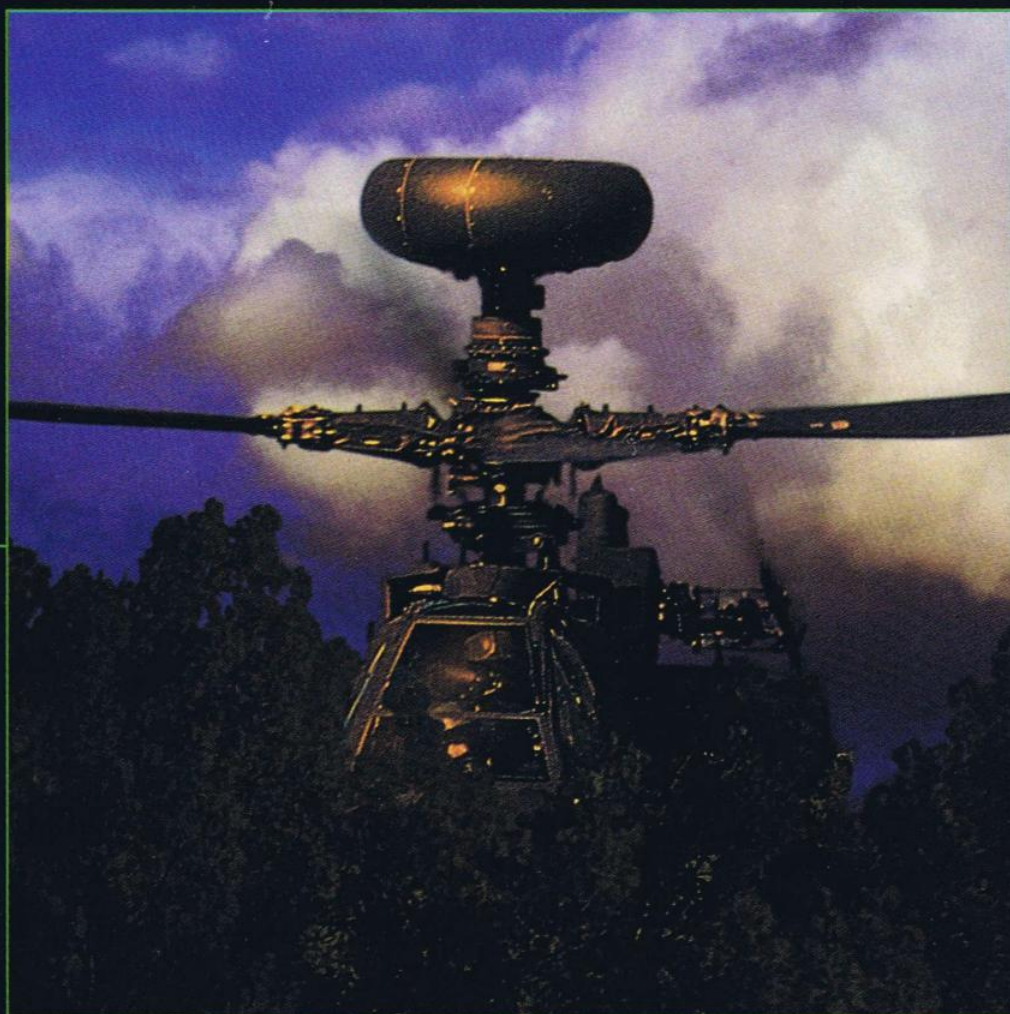
106



116



127



THE AH-64D LONGBOW AS SEEN BY AN ENEMY TANK.





AN ENEMY TANK AS SEEN BY THE AH-64D LONGBOW.

97



57



THE DESIGN TEAM USED EVERY RESOURCE AVAILABLE, FROM COMBAT PILOTS TO LIVE FIRE EXERCISES AND ACTUAL MANUFACTURER'S FLIGHT MANUALS. SO YOU GET PRECISION AVIONICS AND ACCURATE FLIGHT MODELING. IN OTHER WORDS, LEARN THIS GAME AND YOU COULD FLY THE REAL THING.

THIS SIMULATION IS BASED ON EXCLUSIVE, AUTHENTIC AND UP-TO-DATE INFORMATION FROM JANE'S® INFORMATION GROUP (THE WORLD'S LARGEST PUBLISHER OF MILITARY INFORMATION). IT INCLUDES A FULLY INTERACTIVE JANE'S COMBAT REFERENCE GUIDE PACKED WITH PHOTOS, TECHNICAL SPECS, AND 3-D MODELS OF THE WEAPONS AND VEHICLES OF WAR. YOU CAN EVEN PULL UP VIDEO FOOTAGE OF THE AH-64D LONGBOW PULLING THE SAME MANEUVERS YOU PULL. FOR A LETHAL GAME OF HIDE'N SEEK.



ORIGIN is a registered trademark, and AH-64D Longbow is a trademark of ORIGIN Systems, Inc. Reference work from Jane's Library ©1995 Jane's is a registered trademark of Jane's Information Group Limited. Call 1-800-771-3772 for information on game ratings.



**AH-64D
LONGBOW**

FROM ORIGIN®
<http://www.ea.com/janes.html>
(for more information)

Let The Games Begin

I guess since you've torn open the shrink wrap and waded thus far into the magazine, it's probably safe to make a few assumptions about what you've discovered. To that end, let's review what you've already learned and determine what you can expect from *Computer Game Entertainment* here on out.

You've sifted through and selected — from amongst the many professionally-produced gaming publications — the premiere issue of *CGE*. Somewhat immodestly, we refer to it as the most ambitious computer entertainment magazine ever published. From cover to cover it's attractive, utilizing non-toxic inks and some of the highest-quality paper available. Although it's boldly illustrated, it certainly doesn't require the taking of any prescription medication to help you delve through it. The magazine's written in an informative, yet entertaining and intelligent style, includes more screenshots than we care to remember capturing, and is accompanied by a fully-tested, and hopefully trouble-free CD.

Let's continue. You're probably equally impressed by our in-depth, hard-hitting coverage. Well, we're really not prone to blowing our own horn, but in this case this issue merely underscores our pledge to remain at the forefront of gaming journalism. We strive to report on the gaming industry in as timely a fashion as possible, releasing information to the general public as soon as it's thoroughly fact-checked for accuracy and completeness. However, under no circumstances will this policy compromise our editorial integrity. We will *never* review betas or demos, and will only consider reviewing "one-offs" — in lieu of final review copies — if we are granted the expressed written permission of the software publisher.

Furthermore, our annual game awards and unique rating system will never be influenced by advertising concerns, merchandising schemes or product sales. Each game is rated by the reviewer, and the reviewer alone. Although we may grammatically edit the articles to improve the prose, we will never modify a review unless we feel he or she is totally off the mark in their analysis.

We will only accept free travel arrangements with the express understanding that we remain objective, uninfluenced and unbiased in our subsequent editorial coverage. While this might seem trivial to most, we thought it best to stipulate our stance here and now to avoid any confusion later on.

And strangely enough, that brings us full circle to the subject of previews. While we could easily fall into lockstep with the rest of the competition by publishing the earliest "scoops", "first looks" or "works in progress" of upcoming titles, we firmly believe that the first articles aren't necessarily the best articles. Oftentimes they're rife with inaccuracies, contain less information than the back of a cereal box, and have the look and feel of a picture book rather than a piece of truly investigative journalism. Quite frankly, we think you probably agree. Instead, we plan to discuss the truly innovative and noteworthy designs, integrating throughout the articles as much information and relevant background material that we can amass.

Of course, to ascend the summit of publishing, we've made sure to properly complete our homework. Prior to *CGE's* launch we conducted years of painstaking research, held untold marketing studies, and initiated scores of

focus groups (okay, so we hashed it out at a local micro-brewery) to come up with just the right look and feel. We've culled some of the best writers this industry has to offer, empowering them to examine and comment upon the current and future crop of computer-related titles. Over the years, many of these writers have consistently contributed insightful articles for a wide variety of distinguished and highly esteemed publications. As a result, they've agreed to put their reputation, shall we say, on the chopping block. On occasion, they'll be required to stick their neck out when reviewing games for *CGE*. They've been asked, okay cajoled, into accepting the consequences of their actions as they, from time to time, will be rebutted by hot-headed game developers and publishers, in our "kill or be killed" version of point/counterpoint. Our *G-NOME* review demonstrates the concept more fully.

You've probably already noticed that even our accompanying CD is somewhat different than most. Sure, we've crammed it full of exciting new game demos you're probably just itching to test drive. Again, taking it to the next level, we've included *full versions* of some of the latest and greatest releases at no added cost to you. Not bad, huh? We'll also be incorporating any number of specially-designed scenarios and custom-designed levels which should add countless hours to your all-night, sleepy-eyed gaming sessions.

Essentially, we've checked out our competition, discarding what we felt was either mundane or unimportant attributes. We've implemented some of the tried-and-true, time-tested aspects many gamers have long felt comfortable with, improving them by implementing some valuable yet necessary refinements along the way. In brief, although we've just debuted, from top to bottom *CGE* is comprised of a great many responsible and talented individuals who have listened and observed the industry, from any number of vantage points, for more years than we care to publicly discuss.

So go ahead and tuck this issue away for now. Heck, the premiere edition is already a collectable, bound to be worth three times the mere pittance you shelled out for it just hours ago. In fact, we're willing to wager that if you stroll on down to that very same newsstand, bookstore or game shop where you purchased the magazine that the other copies have already been sold out. Shame, you could've easily made yourself a tidy little profit without the tax collector's knowledge.

Anyway, share your good fortune and let your friends know about us. Show 'em the magazine, gloat all you want, then hide it for safekeeping. We'll see more of each other in the coming months — oh, and just remember to pick up an extra copy for your friend.

Marc Dultz, Editor-in-Chief



MAN OF WAR

"MAN OF WAR petitions those aspects of battle many wargames are still dreaming of properly addressing."

- Evan Brooks/Computer Game Entertainment

"The graphics are phenomenal!"

- Bill Trotter/PC Gamer

*Return to a time
when land was won at sea...*

Set during the age of fighting sail, when the oceans echoed with cannon shot and splintering timber, MAN OF WAR's 3D first-person perspective lets you experience first hand the saga of an Admiral's life at sea. With a fleet of ships in your charge and a nation's fate in the balance, bear witness to the consequence of your command and change the course of history.

. 3D Rendered Graphics . Large Scale Fleet Actions . First-Person Perspective



(Actual in-game graphics)



STRATEGY FIRST INC.

SIMULATIONS
CANADA



PC-CD ROM

© 1997 STRATEGY FIRST INC. All rights reserved. Man of War is a trademark of Simulations Canada. All rights reserved.

Visit us at www.strategyfirst.com

WELCOME TO COMPUTER GAME ENTERTAINMENT'S FIRST-EVER CD-ROM...

We didn't stop there, though. To add to your gaming pleasure, we've also included demos of smokin' new titles like GT Interactive's *Tiger Shark*, Sierra Online's *Shivers II: Harvest of Souls*, and LucasArts' *Yoda Stories*. We're also packing in, as a first look, an .AVI (Video for Windows) file from Studio 3DO's *Army Men* (for more about this upcoming game, see our preview on p. 69).

I N S T A L L A T I O N & N A V I G A T I O N

Do you have a 60 MHz Pentium with eight megs of RAM, four megs of hard disk space, and a 16-bit sound card? If so, then installing the CD-ROM's a snap, because it's Autoplay-enabled! Just slide the disc into your CD-ROM drive, and our easy-to-use navigation system pops right up.

Unlike certain other game magazines' CD-ROMs, we don't go in for needlessly clunky, *Myst*-Lite puzzle-solving interfaces. We figure the games themselves

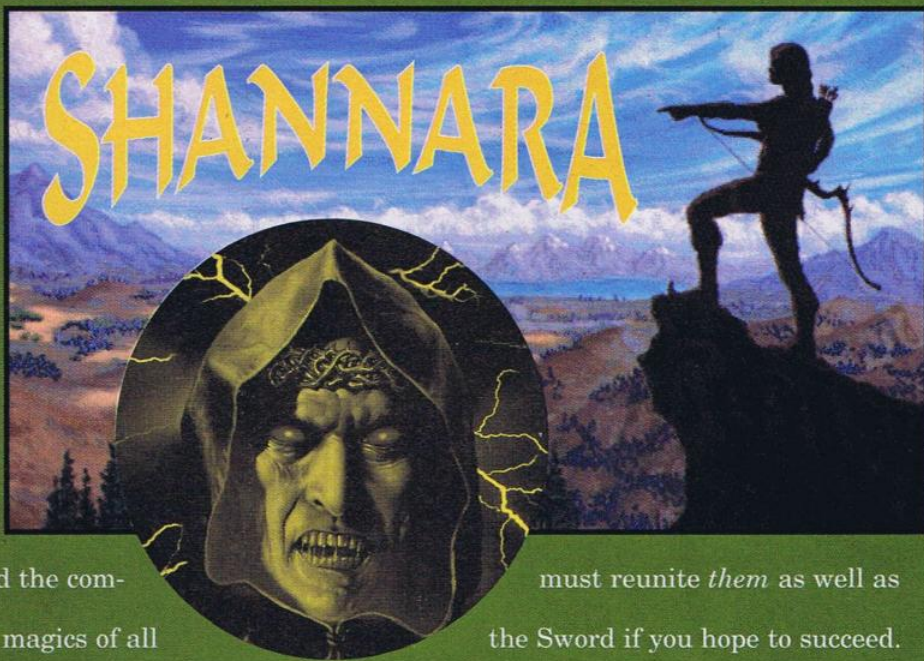
are challenging enough—why should getting to them be a quest in itself?

If you're still poking along with Windows 3.x, you won't be able to take advantage of our menu. You'll still be able to play *Shivers II* in Windows, though, as well as *Shannara* in DOS mode. (Sorry, but *Tiger Shark* and *Yoda Stories* are strictly Windows 95 games.) Just find the appropriate directories on our CD-ROM, and be sure to check the game's text files for Windows 3.x/DOS compatibility.

NOTE: System requirements listed are for installing the navigation system only. All games have separate system requirements, and we recommend that you read each game's text files to make certain they're compatible with your system.

If you have technical problems running this CD-ROM contact CGE (Help!), 100 West 32nd Street, New York, NY 10001. or e-mail us at: mail@cgentertainment.com or Phone: 212-695-3380.

THE SPIRIT of the ancient Warlock King, Brona, is roaming free in the Four Lands. As hero Jak Ohmsford, it is your quest to cross the Four Lands, restore the shattered Sword of Shannara, and wield the magic required to imprison the evil Brona's spirit forever. To accomplish your mission, you'll need the com-

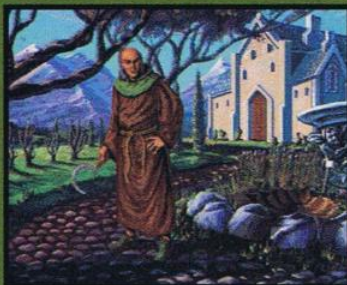


bined magics of all

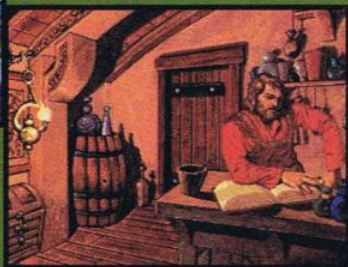
must reunite *them* as well as the Sword if you hope to succeed.

the races—elf, dwarf, troll, gnome and human. Because

Beware, though—your destiny has a price, and it is higher than you could ever imagine!



of the ancestral hatreds between the races, you



Featuring 3D graphics and animated sequences designed by the award-winning team of Corey and Lori Cole, *Shannara* combines Terry Brooks' popular universe with a beautifully-designed multimedia adventure. (Windows 95 or DOS)

PAX IMPERIA EMINENT DOMAIN

The largest, most sophisticated game universe ever created is at your control.

ARRIVING SUMMER 1997

Select one of 16 pre-designed species or create your own race.

Explore up to 800 unique worlds.

Negotiate alliances and treaties with foreign powers.

Manage sophisticated intelligence operations.

Exploit hundreds of research and development technologies.

Engage in real time tactical combat.

Go head-to-head against up to 16 LAN or internet players.

WWW.PAXIMPERIA.COM



COMPUTER GAME ENTERTAINMENT'S CD-ROM DEMOS



YODA STORIES

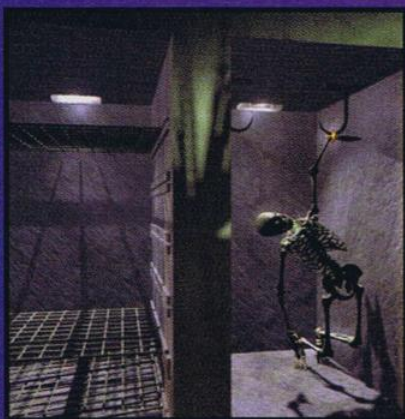
The second in LucasArts' *Desktop Adventures*, *Yoda Stories* is set in George Lucas' *Star Wars* universe. Like its predecessor *Indiana Jones and His Desktop Adventures*, *Yoda Stories* offers the player short, single goal-oriented quests in worlds familiar to moviegoers everywhere. According to LucasArts, the *Desktop Adventures* series is designed "to provide game players with a quicker sense of gratification [by creating games that are] easy to load and play."

Each adventure in *Yoda Stories* begins with Luke seeking out Yoda in the swamps of Dagobah. There, Yoda will devise a test for the young Jedi, give him the first item he needs to accomplish it, and send him on his way. It's up to you, as Luke, to explore, trade and fight your way to a successful conclusion of Yoda's test. While the full game comes with stories set in three different types of terrain which can have a variety of endings, the demo only has one—the destruction of an Imperial arms factory on ice-bound planet Neshtab. You'll know you've succeeded when Obi-Wan Kenobi appears, and grants you one special Jedi power.

TIGERSHARK

The year is 2064. A cataclysmic accident with Japan's Geothermal Tap technology has destroyed much of the country and nearly sixty percent of their population. The Russians, taking advantage of the chaos, annexed what was left of Japan, but continued to use the dangerously unstable means of energy production. Scientists in the United States quickly discover that the accident was, in fact, the side effect of a Russian Submarine Force Commander's attempts to turn the undersea technology into a weapon. If Admiral Konstantin is not stopped, the American scientists warn, his experiments could lead to the collapse of the Pacific plate, and possibly the destruction of life on Earth. As pilot of the experimental subfoil "TigerShark", you must penetrate the Russian naval and submarine defenses, destroy all the Russian and Japanese Geothermal Taps and, if possible, terminate Admiral Konstantin.

With 3D graphics both on and underwater, *TigerShark* is another triumph from GT Interactive, the company that gave the world *DOOM*.



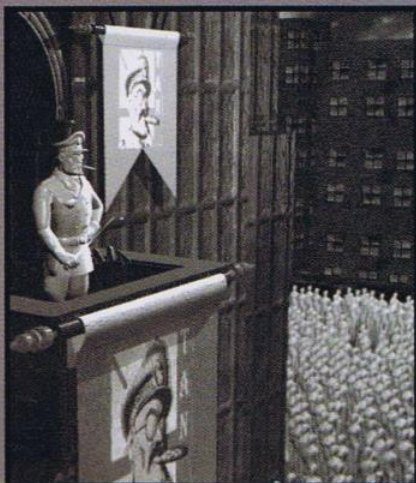
SHIVERS II: HARVEST OF SOULS

Something has happened in the town of Cyclone, Arizona—population 201, and falling. As Warrior, you find yourself in Cyclone's deserted police station, searching for your rock musician friends. In order to find them, you must locate the first of twelve "bahos", or prayer sticks. However, if you hope to discover where the prayer stick is, you'll have to solve a few challenging puzzles set out by the mysterious "Dark-cloud"....

Created by Marcia Bales, the designer of Sierra's original *Shivers*, *Shivers II: Harvest of Souls* will intrigue you, baffle you, and (if you're not careful) suck the life right out of you!

ARMY MEN

If you've read our preview of *Army Men* in this issue, then you know what it's all about. What his article can't convey, however, is the both amazing and comic look of the game, where solid plastic soldiers fight one another, just like in your childhood fantasies! That's where the .AVI file we've included comes in. Just double-click on the icon, and you'll see a 70-second preview with sound of "real combat, plastic men", as 3DO's advertising says. Anyone who ever played with *Army Men* as a child will get a real kick out of this!



NEW Rama	DOS/WC 486/66, 8mb	Adventure	5092002
Front Page Sports Trophy Bass 2	WIN3.1/WC 486/66, 8mb	Sports	5093604
Power Chess	WIN '95 Pentium, 12mb	Strategy Game	5092903
Freddie Fish 2:			
The Haunted Schoolhouse	WIN3.1/WC 486/33 or MAC 68040, 8mb	Children's Enter.	5093406
King's Quest VII:			
The Princess Bride	WIN3.1/WC 486 or MAC 68040, 8mb	Adventure	5024401
The Complete Multimedia Bible	WIN3.1/WC 386, 4mb	Bible	5031703
The Lost Mind Of Dr. Brain	WIN3.1 486 or MAC LCIII, 4mb	Children's Ed.	5037502
Berlitz Live Spanish	WIN3.1 386 or MAC Classic, 4mb	Language Tutor	5043401
Police Quest: SWAT	WIN3.1/WC 486/33, 8mb or MAC PMAC, 12mb	Adventure	5062500
Corel Gallery	WIN3.1 386 or MAC LCII, 4mb, P	Clip-Art Library	5010301
Print Artist 4.0	WIN3.1/WC 486/33, 8mb, P	Home/Personal	5089305
Robert E. Lee:			
Civil War General	WIN3.1/WC 486/33, 8mb	Strategy Game	5084009
Lighthouse	DOS/WC 486/66, 8mb	Adventure	5090204
Turbocad Designer	WIN3.1/WC 486, 8mb	Home/Personal	5084603
Toonstruck	DOS 486/66, 16mb	Adventure	5104708
Trivial Pursuit	WIN3.1 386/25 or MAC LCIII, 4mb	Strategy Game	5027404
Spycraft: The Great Game	DOS/WC 486/66 or MAC 68040, 8mb	Adventure	5063201
WinDelete	WIN3.1/WC 386, 8mb	Utilities	5084504
Shivers	WIN3.1/WC 486/33, 8mb	Adventure	5058102
Compton's Interactive Encyclopedia '97	WIN3.1/WC 486/66, 8mb	General Ref.	5090501
First Aid 97 Deluxe	WIN '95 486, 8mb	Utilities	5098306
First Aid 3.1	WIN3.1 386, 4mb	Utilities	5098405
Ultimate Doom	DOS/WC 386/33, 4mb or MAC 68040, 8mb	Arcade Style	5044409
Final Doom	DOS/WC 486/33, 4mb or MAC 68040, 8mb, J	Arcade Style	5083209
Doom II	DOS 386/33, 4mb or MAC 68040, 8mb, J	Arcade Style	5021506
Zork Nemesis	DOS/WC 486/66, 8mb or MAC PMAC, 16mb	Adventure	5065602
Hoyle Casino	WIN3.1/WC 486/33, 4mb	Strategy Game	5093109
Command And Conquer: Red Alert	DOS/WC Pentium, 8mb	Strategy Game	5105101

How To Select CD-ROMs For Your System.

Each selection includes the following important information: minimum system required, minimum CPU required, minimum amount of RAM required, and required peripherals in addition to a mouse and keyboard (J=joystick, P=printer).

For all titles, the minimum system requirements recommended (unless otherwise indicated) are: Hardware: SVGA monitor (256 colors), sound card, 40mb hard drive, double speed CD-ROM drive. Operating System: DOS 5.0, Windows 3.1, Macintosh System 7.0. (WC=WIN 95 compatible.) WIN '95 =designed for Windows '95 only.

2 CD-ROMs

\$4.95

For EA.

Plus 1 more at great savings!

See details below.



MBA	WIN3.1/WC 486, 8mb	Home/Personal	5098108
9			
WIN '95	486/66 or MAC 68040, 16mb	Adventure	5098900
Age Of Rifles: 1846-1905	DOS 486/66, 8mb	Strategy Game	5097803
Timelapse	WIN3.1/WC 486/66 or MAC 68040, 8mb	Adventure	5095005
Oil Change	WIN '95 386, 8mb	Utilities	5097407
NASCAR Racing 2	DOS/WC 486/66, 16mb	Driving Sim.	5104609
Resume Maker Deluxe CD	WIN3.1/WC 386/33, 8mb, P	Home/Personal	5050703
Command And Conquer	DOS/WC 486/66, 8mb or MAC 68040, 16mb	Strategy Game	5050208
TerraNova: Strike Force Centauri	DOS Pentium, 8mb	Arcade Style	5066600
Beavis And Butt-Head In Virtual Stupidity	WIN '95 486/33, 8mb	Adventure	5075007
Star Trek Deep Space Nine: Harbinger	DOS 486/66 or MAC 68040, 8mb	Adventure	5072608
Caesar II	DOS 486 or MAC 68040, 8mb	Strategy Game	5068606
Jumpstart Pre-K	WIN3.1/WC 486/33 or MAC 68040, 8mb	Children's Ed.	5091400
Jumpstart Kindergarten	WIN3.1/WC 486, 1 mb or MAC 68040, 4mb	Children's Ed.	5027701
Jumpstart First Grade	WIN3.1/WC 486, 4mb or MAC 68040, 8mb	Children's Ed.	5045901
Home Phone	DOS/WC 386 or MAC 68030, 4mb	Home/Personal	5090006
Compton's Complete Street Guide	WIN3.1/WC 386/25, 4mb	Travel	5065909
Quake	DOS/WC Pentium, 8mb	Arcade Style	5097902
The 7th Guest	DOS/WC 386 or MAC LCIII, 4mb	Interact. Game	5004700
Phantasmagoria	DOS/WIN3.1 486/66 or MAC 68040, 8mb	Interact. Game	5004502
Nickelodeon: Director's Lab	WIN3.1 486, 8mb	Children's Enter.	5081005
Mission Critical	DOS/WC 486/33, 4mb	Adventure	5062807
Gabriel Knight: The Beast Within	WIN3.1/WC 486/33 or MAC 68040, 8mb	Adventure	5060405
Mechwarrior 2 Mercenaries	DOS/WC 486/66, 8mb, J	Arcade Style	5091905
Hexen	DOS 486/33, 8mb or MAC 68040, 12mb, J	Arcade Style	5056403
Mechwarrior 2	DOS 486/66, 8mb or MAC PMAC, 16mb, J	Arcade Style	5043609
The 11th Hour	DOS/WC 486/66, 8mb	Interact. Game	5054309
Aces Collector's Edition	DOS 486, 4mb, J	Flight Sim.	5037908
Silent Thunder: A-10 Tank Killer 2	WIN '95 486/66, 8mb, J	Flight Sim.	5080908
Flight Unlimited	WIN '95 486/66, 8mb, J	Flight Sim.	5076203
Duke Nukem 3D: Atomic Edition	DOS 486/66, 8mb	Arcade Style	5105804
3D Ultra Pinball: Creep Night	WIN3.1/WC 486/33, 8mb or MAC 68040, 12mb	Arcade Style	5088208
Precision Mapping 2.0	WIN3.1/WC 386, 4mb	Travel	5071204
Z	Strategy Game		5089404
Steel Panthers II	DOS 486/66, 8mb	Strategy Game	5097704

COLUMBIA HOUSE
CD-ROM DIRECT

Columbia House CD-ROM Direct

Dept. SYV, 3109 Canterbury Court, Bloomington, IN 47404-1498

Yes, please enroll me under the terms outlined in this advertisement. As a member, I need buy just 4 more CD-ROMs at your regular prices within the next 2 years.

Send me these 2 CD-ROMs for just \$4.95 each plus \$1.75 each shipping/handling (total \$13.40)

Buy your first selection now and have less to buy later!
Also send my first selection for \$19.95 plus \$1.75 shipping/handling which I'm adding to my \$13.40 payment (total \$35.10). I then need buy only 3 more (instead of 4) in 2 years.

Please check how paying: ☐ My check is enclosed. (BYX/BY1)
☐ Charge my introductory CD-ROMs and future CD-ROM Direct purchases to:
☐ MasterCard ☐ Diners Club ☐ AMEX ☐ VISA ☐ Discover (BY1/BY2)

Account Number _____ Exp. Date _____ Signature _____

My main CD-ROM interest is: (check one) (Note: You are always free to choose from any category.)
☐ Entertainment ☐ Education (includes children's titles) ☐ Edutainment ☐ Productivity

Name _____ Phone (____) _____

Address _____ Apt. _____

City _____ State _____ Zip _____

Important! Did you remember to choose PC or Mac? Will your selections run on your system?
Note: Columbia House reserves the right to request additional information, to limit membership or reject any application, or to cancel any membership. Offer limited to residents of the contiguous United States. Residents of Alaska, Hawaii, Puerto Rico, U.S. territories, APO and FPO addresses please write for separate offer.

Applicable sales tax added to all orders. S976GM ©1997 The Columbia House Company.

A whole new way to get the most exciting CD-ROMs – games, reference, edutainment and more – all at great prices! Just write in the selection numbers of the 2 CD-ROMs you want for \$4.95 each, plus shipping and handling. In exchange, you agree to buy 4 more CD-ROMs in the next 2 years, at our regular prices (currently as low as \$29.95, plus shipping and handling) – and you may cancel membership at any time after doing so. What's more, you can get one more CD-ROM right now for the low price of \$19.95 and have less to buy later (see complete details in coupon).

Free CD-ROM magazine sent approximately every 4-6 weeks (up to 13 times a year) reviewing our Featured Selection – plus scores of alternate choices, including many lower priced CD-ROMs. And you may also receive Special Selection mailings up to four times a year. (That's up to 17 buying opportunities a year!)

Buy only what you want! If you want the Featured Selection, do nothing – it will be sent automatically. If you'd prefer an alternative selection, or none at all, just mail the response card always provided by the date specified. You'll always have 14 days to decide; if not, you may return the selection at our expense.

Money-Saving Bonus Plan. If you continue your membership after fulfilling your obligation, you'll be eligible for our generous bonus plan. It enables you to enjoy great savings on the CD-ROMs you want – for as long as you decide to remain a member!

10-Day Risk-Free Trial. We'll send details of how Columbia House CD-ROM Direct works along with your introductory package. If you're not satisfied, return everything within 10 days at our expense for a full refund and no further obligation.

Act now, membership in CD-ROM Direct may be limited.

For faster service, use your credit card and call us toll-free 24 hours a day.

1-800-792-1000 Dept. SYV

Check us out online! For more titles...to order...or for more information.
<http://www.columbiahouse.com/cdrom>

OFF THE BEATEN PATH

Sierra On-Line is no stranger to racing simulations, what with their publishing Papyrus Design Group's IndyCar Racing and NASCAR Racing 2. This time out, though, Sierra jumps the track with Papyrus' SODA Off Road Racing, due out later this year.

Based on the Short Course Off-Road Drivers Association's (SODA) World Series of Off-Road Racing, the game consists of six different tracks in country, desert and tropic environments. Each quarter-mile square track allows the player to either stay on course or go off-road, providing s/he passes driving challenges like jumps, hairpin turns, off-camber turns, elevation changes and track objects. The player can race in one of three classes of off-road vehicles: 800-horsepower, two-wheel drive trucks; 800-HP, four-wheel drive trucks; and 150-HP buggies.

In the game, the player begins as an inexperienced off-road driver competing against other inexperienced drivers. In order to advance, s/he must win all 12 races in each of six difficulty classes. Once s/he wins the championship series in all six classes, a final level is invoked. The player can race against either computerized opponents, another player via modem, or five other players via a LAN.

SODA Off Road Racing will come with a track designer, force-feedback joystick/steering wheel support, and 3D accelerator support. The game will include licensing of SODA and its major sponsors.

For more information about SODA Off-Road Racing and Sierra On-Line, visit their Website at <http://www.sierra.com>.



ROAD TO NOWHERE?

Arsenal Publication Inc.'s *Road to Moscow* computer wargame will not be released until much later than anticipated. As Jim Degoe of Arsenal explained, "technical delays with our outside design team have held up release of *Road to Moscow*," which was supposed to have been available back in April, 1997. Degoe went on to explain that certain other Arsenal games, including *Weapons Free*, *Armor in Action* (originally *TCP*) and *Road to Paris* (a follow-up wargame using *Moscow*'s design), expected for 1997 delivery, may not be available until 1998.

For more information about *Road to Moscow* and other Arsenal games, visit their Website at <http://www.arsensalpub.com>.



YOU DON'T KNOW CUC SOFTWARE

Berkeley Systems, publishers of the popular parlor game *You Don't Know Jack* and the *After Dark* line of screensavers, has merged with Sierra Online's parent company CUC Software. The friendly merger was announced on April 2, and completed nine days later.

Linda Dutenhaver at Davidson & Associates, another CUC subsidiary, explained that CUC acquired Berkeley for "their strong retail brands, as well as their pioneering Internet programming and technology via their free online network, beZerk." She went on to say that Berkeley will retain its creative autonomy, and will report directly to Sierra, who recently released both the PC game *Shivers II: Harvest of Souls* and the Screamin' 3D video accelerator card for Windows 95.

Sierra On-Line

CAUGHT IN A DEADLOCK

Deadlock 2, the sequel to the best-selling strategy game of the same name, will be out in time for the 1997 holidays. Publisher Accolade, Inc. promises a game that's even bigger and better than the original.

The action of *Deadlock 2* takes place following the conquest of Gallius IV, the goal of the original game. In this story, alien shrines created by a race called "The Ancients" are discovered during the settlement of Gallius IV. The shrines point the location to the Ancients' homeworld, which players must embark on a voyage of both conquest and discovery to find.

In *Deadlock 2*, players will face 42 new campaign scenarios, with different campaign goals for each of the different races. There's also enhanced combat featuring nine new types of fighting units including submarines, surface vessels and air units; a revised technology tree with 13 new types of technologies; enhanced characters, graphics and cinematics; a full-featured map editor and improved AI.

Players can win either by alliances or by combat between them. *Deadlock 2* will offer multiplayer capability via LAN, modem and the Internet.

For more information on *Deadlock 2* and Accolade's other products, look into their Website at <http://www.accolade.com>.



THE ABC'S OF DVD

In the DVD-ROM upgrade sweepstakes, Creative Labs believes in being "earliest and cheapest." Back in late March, the company — best known for their Sound Blaster line of audio cards — shipped the first available DVD-ROM upgrade kit for Pentium PCs. Appropriately named "PC-DVD Kit" it boasts a highly-competitive Suggested Retail Price (SRP) of \$499. The PC-DVD Kit comes with a Panasonic DVD-ROM drive, an MPEG-2 video card and Dolby Digital AC-3 audio decoder card, software drivers, and "Warner Movie Samples" — popular DVD movie titles from media conglomerate (and big-time DVD booster) Time-Warner.

A few weeks after Creative's launch, Hi-Val — the CD-ROM and sound card distributor — also started shipping their "Hi-Val DVD Home Entertainment System." Though nearly double the SRP, Hi-Val's DVD-ROM upgrade kit includes not only a Toshiba DVD-ROM drive and Quadrant International board, but also RF transmitters and a VGA-to-NTSC encoder so you can send wireless A/V signals from your PC to your television monitor and/or stereo system.

While Diamond Multimedia — manufacturers of Stealth video and Monster 3D graphics cards — may not have beaten either Creative or Hi-Val to the punch, they'll have their own DVD-ROM multimedia upgrade kit on the market by the time you read this. Tentatively priced at "under \$600" according to Diamond spokesperson Joan Huang, their kit will ship with a Toshiba DVD-ROM drive and MCI drivers to play content; a Diamond DVD adapter card with MPEG-2 and AC-3 onboard decoding, as well as a VGA-to-NTSC encoder so you can watch DVD features on your television monitor; and DVD-ROM-specific titles such as Activision's *Spycraft: The Great Game*

and *Muppet Treasure Island*, Tsunami's *Silent Steel*, Xiphias Corp.'s *Encyclopedia Electronica*, Multicom Publishing's *Better Homes and Gardens Cool Crafts*, and PhoneDisc's *PowerFind*



er USA One disc telephone directory.

An enhancement of current CD technology, DVD — which stands for "digital versatile disc" — uses smaller data pits and a shorter-wavelength laser beam to pack more information onto a 5-1/4" CD-style disc. Designed to be backwards-compatible, DVD-ROM drives can also play CD-ROM, Video CD, CD-Extra, CD-I and audio CDs at between 8x and 9x speeds.

How much more information can a DVD hold? A single-sided, single-layer disc can hold up to 4.7 gigabytes of data—over seven times the amount a 650-megabyte CD. More significantly, the discs can hold two layers of data and be double-sided (much like a double-sided, double-density floppy disk), boosting information storage to 17 gigabytes.

Don't expect to see double-sided DVD-ROM discs right away, though. Apparently, they're a bit tougher to manufacture than originally anticipated. Manufacturers are now saying double-sided discs should be available by late 1997.

For more information on DVD-ROM, drop in on Creative Labs' Website at <http://www.creaf.com/>, Hi-Val's at <http://www.hival.com/default.html/>, or Diamond Multimedia's at <http://www.diamondmm.com>.

HITCHHIKER'S GUIDE TO STARSHIP TITANIC

Great news for *Hitchhiker's Guide to the Galaxy* fans! Douglas Adams, creator of the best-selling media phenomenon, is back with a new adventure on CD-ROM. Designed by Adams and the Academy Award-winning team of Oscar Chichoni and Isabel Molina, *Starship Titanic: An Interactive Epic* is set aboard a technologically-advanced intergalactic luxury liner. Dubbed "The Ship That Cannot Possibly Go Wrong", naturally something *does*—the *Titanic* crashes into your room! You have to reassemble the ship's huge, twelve-part supercomputer, while trying to communicate with a cast of idiosyncratic "bots".

Starship Titanic: An Interactive Epic will be crashing into stores this Fall, a co-publication of Adams' Digital Village and Simon & Schuster Interactive.

PLUG IN.
THINK FAST.
PLAY FOR
REAL.

INTRODUCING

Discovery Channel Games.

Prepare your imagination

for the real world.



Coming this fall from

Discovery
CHANNEL
MULTIMEDIA

A Pictionary IS WORTH A THOUSAND WORDS

Hasbro Interactive, Inc., a division of toy manufacturer Hasbro, Inc., is working on CD-ROM versions of their popular boardgames Pictionary and Sorry!. Scheduled for Fall release, both games will offer single-player as well as multiplayer modes over a LAN or the Internet.

In the single-player mode of Pictionary, you play against the computer as artist. Set in a trendy art gallery, each picture — either line art or full-color drawing — is slowly revealed. When you think you know what the picture is, you press a key and type in the answer. In multiplayer mode, everyone can either play against the computer as artist, or simply use the computer as a gaming board and do the artwork themselves.



Pictionary also includes a round called "linking words." Similar to a round of the television game show *Wheel of Fortune*, players guess the first word of a sentence from the revealed picture, then the second word, and so on until one player or team guesses the entire sentence.

The *Sorry!* CD-ROM game is much like the board game, except that the tokens have their own amusing personalities. The board itself is filled with slides and bumps for added challenge and fun. In multiplayer Internet games, players can activate voice chat and "Sor-ry!" each other in person.

For further information about Pictionary, *Sorry!* and other Hasbro Interactive Products, visit their Website at <http://www.hasbro.com/cdrom>.



SIZE IS EVERYTHING

If you purchased one of Sony's line of VAIO multimedia PCs with the lavender-and-grey cases to blend in better with your home furniture, then you might have been less than happy with the relatively smallish 15" monitor that came with it. In fact, you've probably considered purchasing a larger monitor, except most of those are some sterile shade of off-white.

Fortunately, Sony's come out with a 17" multimedia display for their VAIO line, the CPD-220VS. With a competitive SRP of \$899, the CPD-220VS comes with the same lavender-and-grey casing as your PCV-100 and PCV-120 personal computer.

Let's say, though, that you could really care less about the case color of your PC, and if your monitor matches it or not. You bought a Sony VAIO because of its top-to-bottom component integration, and because it comes from an electronics manufacturer

WHEN WORLDS COLLIDE

The epic *Warcraft* saga, created by Blizzard Entertainment, will be gaining a new chapter this holiday season with the release of *Warcraft Adventures: Lord of the Clans*. Picking up where *Warcraft II: Beyond the Dark Portal* ended, *Lord....* takes the bestselling real-time strategy series down a new path on an adventure game set in Azeroth.

As the virile young Orc Thrall, the player must escape his human masters, return to his people, reunite the disbanded Orcish clans, and do battle to return the Orcish Horde to dominance. Unlike earlier titles in the series, the protagonists in *Lord....* are Orcs rather than humans.

Blizzard stated, "The adventure game tells an important chapter in our overall vision for the *Warcraft* story. For the first time, players will interact with the Orcish Horde, and learn about their history and motivations. The game adds to the depth of the *Warcraft* universe and provides the backstory for future titles." With more than 60 locations on Azeroth, over 70 animated characters —



including many from earlier *Warcraft* titles — and the voice talents of Hollywood actors such as Clancy Brown (Lex Luthor in the "Superman" animated series) and Tony Jay (Disney's *Hunchback of Notre Dame* animated feature), *Lord....* promises to immerse players in a rich storyline, character interaction and extensive exploration.



you trust. What does the CPD-220VS bring, besides Sony's Digital Multiscan technology? Quite a bit, actually.

First off, Sony's new monitor has a completely built-in speaker system, with 3.5-watt side speakers and a 10-watt subwoofer for true three-dimensional sound. It also has improved bass boost for more realistic lows — not something you're used to getting with a PC speaker system — as well as a built-in microphone in the front panel.

More importantly to gamers, Sony's built their Graphic Picture Enhancement (GPE) tech-

nology into the CPD-220VS. This gives you four preset monitor viewing modes — standard presentation, still photo, MPEG video and 3D game — so you can select the right mode for each particular occasion!

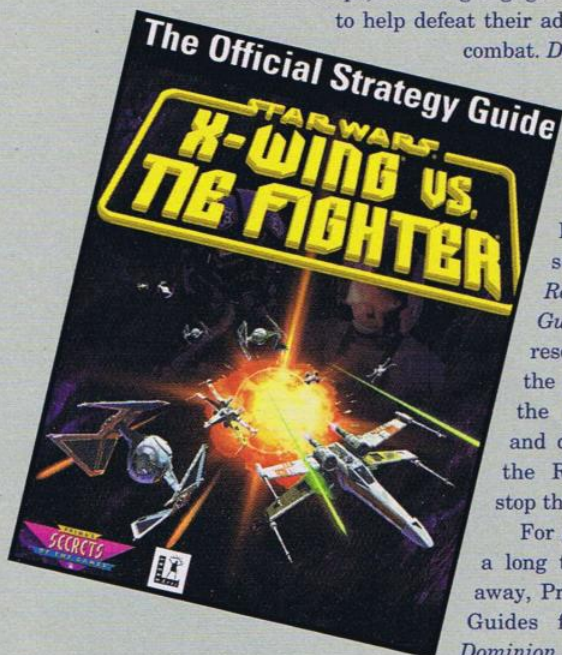
Screen resolutions are selectable up to 1280 x 1024 pixels at 60 Hz. There's also adjustable color temperature presets, so you can select the color temperature that best fits the light you use your computer in.

For more information about the CPD-220VS and other PC by Sony products, see their Website at <http://www.sony.com/pc>.

FEEL THE FORCE

Prima Publishing's Summer lineup of "Official Strategy Guides" reflects the resurgence in popularity of George Lucas' *Star Wars* series. Of the five titles Prima announced, three are for games based on the ground- and record-breaking motion pictures: *X-Wing vs. TIE Fighter*, *Dark Forces II: Jedi Knight* and *Rebellion*.

In *X-Wing vs. TIE Fighter: The Official Strategy Guide*, players acquire strategy and combat tips, including dogfighting and flying with a wingman, to help defeat their adversaries in multiplayer space combat. *Dark Forces II: Jedi Knight: The*



Official Strategy Guide teaches players the ways of "The Force" in this multiplayer sequel to the game *Dark Forces*, as good and evil Jedi Knights battle each other in a series of multilevel mazes. *Rebellion: The Official Strategy Guide* covers how to command resources, planets and forces in the real-time strategy game about the Galactic Empire's expansion and domination of the galaxy, and the Rebel Alliance's attempts to stop them.

For gamers who don't want to play a long time ago in a galaxy far, far away, Prima also has Official Strategy Guides for *X-Com: Apocalypse* and *Dominion*. The guides cover real-time and turn-based tips, tricks and tactics on both

strategy games, which are previewed elsewhere in this issue.

All five Prima Official Strategy Guides carry a stickered SRP of \$19.99 each, and will be available shortly after the games' official ship dates. Check out Prima's Website at <http://www.quiknet.com/primapub/enter/enter.html>.

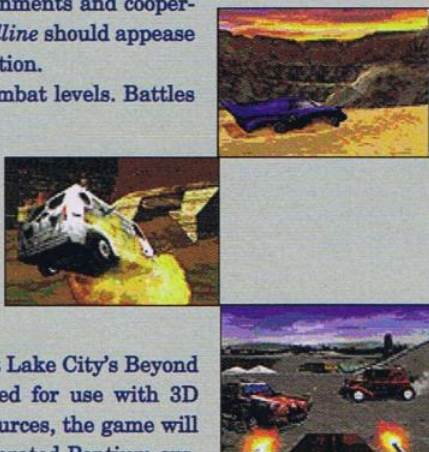
APPETITE FOR DESTRUCTION?

Games that slip you into corinthian-appointed cars fighting in a post-apocalyptic wasteland are nothing new, but Accolade promises you've never seen a game quite like *Redline*. With fully-destructible 3D environments and cooperative as well as competitive group play, *Redline* should appease any gamer's insatiable appetite for destruction.

To win, players do battle in 20 huge combat levels. Battles can be fought either on foot or inside a vehicle, though both may be required for victory on some levels. The final version is expected to have over a dozen different vehicles and a wide variety of weapons. Players can choose to do battle alone against the computer, or play with up to 16 others via a LAN or the Internet.

Accolade and the game's developer, Salt Lake City's Beyond Games, tell us *Redline* has been optimized for use with 3D graphics accelerator cards. According to sources, the game will run at 30 frames per second on a 3D-accelerated Pentium system for added realism. 3D card chipsets supported as of this writing include the Rendition, NEC's Power VR, 3DFX, and DirectX.

Redline's official launch is slated for a Xmas ship date. For more information about *Redline* and other Accolade games, visit their Website at <http://www.accolade.com>.



MAKE ONE
MISTAKE
AND YOU'RE
HISTORY.

PLANET EXPLORER

BYZANTINE

THE BETRAYAL

A dangerously authentic world

where the characters, places and

mysteries are so real...you may never

solve your way out.

Coming this fall from

Discovery
CHANNEL
MULTIMEDIA

www.planetexplorer.com

GAMES OVERBOARD



towns for fun while defeating enemy ships, solving puzzles, fighting end-of-level bosses, and collecting power-ups and other loot. Taking advantage of 3D acceleration, *Overboard!* offers three-quarter perspectives; ships affected by wind, sea and damage; and real-time intelligent enemy AI. You can play against the computer, or against other players via linked or modem play.

Psybadek takes you on a hoverracing trek through a stylized 3D *anime* world, solving puzzles as you try to outrace and outperform the bad guys to save your friends. There are plenty of challenges in addition to lots of extreme boarding moves, but you're well-armed with weapons such as snowballer bombs, boomerang bombs and the lethal "stomp." You also get to pick up collectibles, power-ups and Golden Ankhs, and can take advantage of teleports, wormholes and generators as you race to challenge the final boss.

As a new but ambitious Chicago gangster, you'll want to rise to the top of the heap in *Respect Inc.* The best way to gain respect is with a great set of duds, not to mention a penchant for bribery, corruption and intimidation. Of course, it's even sweeter when you make your enemies lose *their* respect with weapons like the "splatter gun," which shoots rotten fruit all over their clothes! This 3D humorous adventure/strategy game takes you through 24 missions in places like Alcatraz, Las Vegas and Elmer City, letting you play as one gangster or a member of four.

In *Rascal*, you're the precocious son of a scientist, pitted against the evil Timelord (no relation to Dr. Who, I'm sure!). In your time machine, you whip through three time periods, seven lands and 21 levels, trying to stop the Timelord from changing the past to suit his own fell purpose. The real-time 3D landscapes and action offer a full 360° of movement. Designed by Traveler's Tales — the award-winning design team responsible for the *Mickey Mania* and *Toy Story* platform games from a character created by Jim Henson's Creature Shop — *Rascal* may be targeted at players from eight to 18, but will hook older players seeking great gameplay and originality as well.

Finally, *Shadow Masters* is a first-person, 3D adventure title shipping for Xmas. The Dictatorship of the Solar System has perverted the lifeforms of each planet, turning them into abhorrent monsters. From inside your craft, you must fight gruesome creatures such as giant spiders, dragons and exploding pods as you fly missions — such as protecting friendly ships or destroying enemy reactors — on each of 16 different levels. Designed by British artist Rodney Matthews, famous for his distinctive futuristic yet organic creatures, you'll face a plethora of varied and spectacular enemies on each world.

For more information about Psygnosis, visit their Website at <http://www.psygnosis.com>.



IT'S ALL IN THE DEAL

Coming out this Fall, Acclaim's *Constructor* places you, as a real estate developer, building and managing properties. Beginning with a plot of land, some money, a headquarters, workers and a foreman, your job is to improve and expand your domain through the addition of public works and housing. Additionally, you'll have to improve the quality of life of those already residing on your properties by better housing, job-creating businesses, etc.. Just as in real life, you'll have to do all this while showing a profit, along with managing tenant population and associated stress levels. The ultimate goal is to attract "desirables" — such as law-abiding tenants, workers and police — to build and defend your community....

Put like that, *Constructor* sounds like *Sim Civics Lesson*, doesn't it? But that's only the virtuous side of the equation.



The *fun* side of the equation is in how you accomplish these goals, while trashing your opponents' real estate empires in the process. From the very beginning, where you select one of four mission

objectives — "Financial Conquest", "World Domination", "Ego Mania" or "Utopian State" — it's obvious this is not business administration as it's taught in school. To win, you'll have to fulfill the goals of your particular mission objective, which are on the order of "Build Every Structure Possible" ("Ego Mania") or "Own Every Territory in the World" ("World Domination"). To aid you in this endeavor, you'll also want your neighborhood to attract "undesir-



ables" — like psycho clowns, ghosts, mobsters and chainsaw-wielding maniacs — to launch against your opponents' properties. Unless for some reason your goal is to "Create a Perfect, Stress-Free Environment" ("Utopian State"), you'll be behaving like Leona Helmsley on crank by the end of the game!

Constructor, for both DOS and Windows 95, was created by the European game developer and publisher System 3 Arcade Software Ltd., creators of *International Karate* and *The Last Ninja*. The game boasts a detailed graphic environment and fully-animated sequences; comic circumstances drawn from real life; and either broad or personal hands-on interaction with the game's characters. You can play alone against three computer AI opponents, or with up to four people via a LAN.

For more information about *Constructor* and other Acclaim titles, visit their Website at <http://www.acclaimnation.com>.

TOO LIVE (A) CREW

Are you tired of racing games that concentrate more on the accuracy of the simulation than the sheer joy of tearing up the track? Do you think that while all those new 3D high-res polygon-filled game engines *look* nice, they slow games down to a crawl on your PC? Is your goal in a racing game to just drive fast and beat the pants off your opponents? If so, then Telstar Electronic Studio Ltd.'s *Wrecking Crew*, coming out late this summer, may be your kind of game.

Released in the United States for both Windows 95 and PlayStation by Sirtech Software, Inc., *Wrecking Crew*'s goal is to put the fun back into computer racing. The game will utilize a "blisteringly fast 3D game engine," according to the U.K.-based developer and publisher Telstar, that will give players the clarity of SVGA without the obligatory slowdown. The game can either be played alone against the computer, or with up to eight players on a LAN.

Wrecking Crew has you racing against seven other opponents — and two hidden characters, "The Gimp" and "Bibley the Biker," whose sole purpose is to mess things up for everyone! You'll get to play on regular and stunt tracks in either head-to-head, cup or demolition derby competitive modes, while grabbing upgrades to add to your speed and firepower, or repair damage to your vehicle.



Each of the eight characters you assume have distinct personalities and vehicles, complete with goofy weapons and powers to add to the challenge. You can race as "Ma" — an old hillbilly lady in a Ford F100 pickup who fires an elephant gun, throws chickens and pigs behind her, and exhales a cloud of alcohol vapor to make her opponents unsteady at the wheel; mad scientist "Doctor Nitrous" in his Ford Popular — firing his pulse/tazer gun, hurling acid flasks, and teleporting away from danger; or ex-circus performer "Sir Cuss," driving a '57 Chevy Corvette who launches destructive midgets, as well as using hypnosis and flaming circles to bamboozle the other players.

AVALON HILL'S SHARP DEFIANCE

You thought you knew what to expect from The Avalon Hill Game Company, respected creators of turn-based strategy games like *Stalingrad*, *Panzerblitz* and *5th Fleet*. Think again, lunchmeat! With *Defiance*, Avalon Hill rips off the gloves with their high-octane, 3D action title.

In the bloody tradition of *Descent*, *Duke Nukem* and *Mechwarriors*, *Defiance* has you in first-person flight sim mode, testing an awesome new flying weapon. Suddenly, hordes of cyberorganic creatures attack Earth—and only you and your powerful new toy can save humankind!

Defiance has been optimized to work with all 3D cards, including Intel's new MMX Pentium chip. Using Avalon Hill's TruFlow technology, this will give you lag-free motion through 13 levels of "kill or be killed" combat action. It's a good thing you'll have plenty of firepower including plasma bolts, autocannon, rail gun, dumb missiles, tracking missiles, swarm missiles, "bounce bombs" and holographic decoys—you're going to need them!



Defiance will be out on CD-ROM this Fall, with a tentative suggested retail of \$69.95 (and that's the only tentative thing about it!). You want to find out more, go to Avalon Hill's Website at <http://www.avalonhill.com>.

EVOLVE OR DIE

Evolution

THE GAME OF INTELLIGENT LIFE

A Darwinian strategy

game where you

either get smart...

or go extinct.

Coming this fall from

Discovery
CHANNEL
MULTIMEDIA

evolution.discovery.com

HOME ALONE?

Attention, *Command & Conquer* fans! Westwood Studios, the company behind the multimillion-selling computer strategy game line, has announced that *Command & Conquer Sole Survivor*, an online multiplayer version of the megahit, will be out this Summer. *Sole Survivor*, scheduled to be available exclusively on Westwood Chat, the company's online gaming service, will permit games of up to 50 players simultaneously.

In *Sole Survivor*, players select one combat unit to command. Each unit's mission is to gather crates of power-ups, while at the same time battling the opposition units. The



ultimate goal is to be the only unit still standing on the battlefield; temporary alliances may be formed, but ultimately it's the player against the world!

Crate power-ups include increased speed, improved weapons strength, unit first aid and stealth capability, if you're lucky. Some crates, though, are booby traps, capable of weakening and even destroying the player's unit! For new players or those wishing to sharpen their skills, *Sole Survivor* will also offer a "skirmish mode." By playing against the computer, players can learn how it's all done and practice developing new tactics.

For more information about *Command & Conquer Sole Survivor* and Westwood Chat, players are encouraged to visit their Website at <http://www.westwood.com>.



INTO THE WILD BLUE YONDER

Imagine aerial warfare during World War II; before laser guidance systems, computer navigation or long-range missiles existed. Back then, pilots needed sharp eyes and a quick hand on the controls to fight their brethren knights of the sky. This experience, in all its terror and glory, is what Activision intends to capture with *Screamin' Demons Over Europe*.

While far from the first WWII flight simulator ever to grace the PC, *Screamin' Demons*, as Activision promises, will be "an unequalled airwar experience." Developed by Parsoft Interactive, makers of the award-winning *A-10* flight sim series, the sim utilizes a new physics model and a ground-breaking simulator engine.

Using the most accurate inertia, gravity and force calculations to date, *Screamin' Demons* will vividly recreate the up-close and personal air combat of the era. Players may choose from nine different planes including Lockheed's P-38 Lightning, Focke-Wulf's Fw.190 F-8 and the first-ever jet fighter, Messerschmitt's ME-262. Flying over three different operational theatres from WWII — the English Channel, the Rhineland and North Africa — the player can blast his/her opposition out of the sky...provided they're a good enough pilot!

For more information about *Screamin' Demons* and other Activision titles, visit their Webpage at <http://www.activision.com>.

EXTREME STICKS AND STONES



Okay, so you've just gotten hold of that hot new Windows 95 flight sim, shoot-'em-up or arcade game. You load it up and start to play, only to find that your current joystick or gamepad can't cut the mustard. If that's the case, Logitech has the answer; their next-generation WingMan Extreme Digital joystick and ThunderPad Digital gamepad, available as we speak.

Optimized for Windows 95, both the WingMan Extreme Digital and the ThunderPad Digital offer digital communication for faster response time in high-pressure gaming situations. For backwards compatibility with older DOS-based games, both also come with optional analog interfaces. The WingMan Extreme Digital joystick, like its analog predecessor, comes with their popular sculpted rubber grip and reinforced raised rubber hat switch. To that, the digital joystick adds two

additional buttons, raising the total to six, and a radial throttle. All buttons can be programmed to specific commands for each game, including keyboard commands.

As with the WingMan, the ThunderPad Digital gamepad offers easily-customizable buttons through Logitech's control panel, whose functions can then be printed out on a simple-to-follow color reproduction of the unit itself. Moreover, anticipating the increased sophistication of games under Windows 95, this gamepad features eight buttons along with the directional pad.

The WingMan Extreme Digital joystick has a suggested list price of \$49.95, and the ThunderPad Digital gamepad lists for \$29.00. For more information about Logitech's entertainment and other products, visit their Website at <http://www.logitech.com>.



**"GRAPHICS ARE GORGEOUS,
FLIGHT MODELS IMMACULATE"**

BOOT

"FLYING CORPS IS OUTSTANDING"

PC GAMER

"THE NEW KING OF WW1 GAMES"

COMPUTER GAMING WORLD

**"THE TOP WW1 FLIGHT SIM, FROM TOP
TO BOTTOM, THIS IS A GREAT GAME"**

PC GAMES



**PC
GAMES
A
LIST**

**PC GAMER
EDITORS'
CHOICE**

**CG
RATED**

WHO ELSE COULD
MAKE FLIGHT
SIMULATION SO REAL

**empire
INTERACTIVE**

THE HELLIONS OF DAWN

March 15th, 2002: Somewhere over the Persian Gulf

"Bulldog, Bulldog. I repeat, strike package Alpha-Tango-Zulu has been compromised. Both Eagles have been destroyed and I am going defensive. Request CSAR for Eagle drivers. Code word Buster. I repeat, BUSTER." The F-117C pilot hoped that the pilots of the two escorting Saudi F-15C Eagles would be rescued well before the Iranian Revolutionary Guardsmen could capture them.

After destroying two sophisticated Iranian Dassault Rafales, both F-15's had themselves been shot down, mute testimony to the awesome firepower the three remaining Iranian interceptors possessed.

The downed airmen might have to wait though. Combat Search and Rescue (CSAR) measures to

recover the pilots would commence only after the Iranian aircraft had either been dealt with or had vacated the area. In the meantime, the F-117C pilot was now all alone, doing his utmost to ward off the remaining enemy aircraft.

The three American-built aircraft were on the last leg of a SEAD (Suppression of Enemy Air Defenses) mission deep in Iranian territory. While egressing from their target, the three aircraft had been jumped by the low-flying flight of sophisticated Iranian aircraft loitering over the dark, hilly terrain just south of Teheran. His voice cracking and betraying great concern, the pilot's frantic message over the Have Quick secure link radio channel painted a grim picture indeed.

The American pilot feverishly attempted to evade the three roving Iranian fighters, vigorously — yet blindly — pursuing his stealthy, yet slow-moving aircraft. The pilot eyed his forward-looking, multi-function radar display, keenly observing the three blips which represented the cross-section returns of the Iraqi supersonic jets. One leveled off at the same altitude as his aircraft, taking up a position just several hundred yards off his port wing. The pilot snap-looked out into the pitch-black night, attempting to visually identify his hunter. There, mixed in amidst the blue-green symbology plastered across the sighting glass of his integrated helmet, he saw his nemesis. The small red flashing anti-collision lights, affixed to the delta-winged

Rafale, gave away its position. The Iranian plane launched a MICA missile, the blossoming fiery red exhaust silhouetting the oddly-shaped contours of the Rafale aircraft. The Iranian pilot was obviously hoping that the seeker on his advanced air-to-air missile might acquire the F-117 if he could not.

The American pilot's next reaction was instinctive, if intelligent. Shoving the stick to starboard, he wildly rolled the plane into a sharp, wing-over maneuver to avoid detection. The MICA was an excellent weapon and could very well acquire his plane, stealth or no stealth. The missile whizzed by, unable to lock on to the F-117's cooled exhaust plume.

The Iranian pilots were good and getting closer. They and their equipment had improved since their last war. The maneuver, while appropriate, unfortunately brought the outlines of two more Iraqi fighters into view.

Crewmen on board Bulldog — the call sign for a prying Boeing E-3D Improved Airborne Warning and Control System (AWACS) aircraft — stood by helplessly, listening to the broadcast and watching their monitors. The AWACS plane, flying a racetrack-like loop several hundred miles away in the Persian Gulf, continued monitoring the unfolding situation. A senior captain keenly eyed the JTIDS panel electronically datalinked to the F-117's stores. Apart from chaff and flares the F-117 pilot had little else to ward off his predators. Next, he surveyed the three green blips — signifying the Iraqi aircraft — dotting his surveillance operator's radar monitor. Because the F-117C utilized stealth technology, the small aircraft was virtually invisible on radar screens, including their own. From the constant altitude changes and occasional missile firings they were capable of tracking, the captain presumed, and with good reason, that the three Rafales were in the final stages of locating the F-117.

Several seconds elapsed before the captain, himself being briefed by an Air Liaison Officer (ALO), responded to the pilot's dire plea for help. "Copy that, Peacekeeper. We have a friendly inbound, ETA your position twenty seconds. Suggest you switch on your anti-collision lights and recheck the IFF transponder. Over."

The pilot winced. Surely the AWACS' officer knew that engaging the aircraft's anti-collision lights would represent a death sentence. In the cloudless night sky, the outline of his aircraft would instantly become visible to the naked eye. He checked



A Preview of iF-22: Raptor

by Marc Dultz

Left: Players can follow enemy aircraft courtesy of an "in-the-helmet" viewpoint.

Right: A concept simulator used to provide pilot training.

his forward-looking radar display, toggling the MFD to its maximum effective range. Beyond the three Iranian aircraft, nothing else appeared on the powerful GPU-73 radar.

"Bulldog, say again?"

"Peacekeeper, switch on your lights. Immediately execute as instructed, over."

The F-117 pilot didn't dwell on the subject. Life or death was at hand. One Iranian plane was already maneuvering to gain a position behind his aircraft. As ordered, he stabbed at a button, switching on the anti-collision lights studded on the wing tips, fuselage and tail fins. Within seconds, two objects streaked near him, while tracers dangerously shot past his canopy. Three explosions ensued, one to port and two to starboard. The pilot threw up a hand, shielding his eyes from the fiery blasts erupting all about his aircraft. He glanced down, inspecting the once vibrant MFD. All three blips had disappeared from the monitor, and apart from the budding fireballs now trailing behind him, there was no further trace of the marauding Iranian planes.

Safe for the moment, he disengaged his anti-collision lights. Scanning the night sky for further predators, the pilot saw something unfamiliar whiz by just to port, his targeting reticle flickering briefly. Muffled engine noises followed in the spectre's wake, the unexpected turbulence buffeting his fly-by-wire aircraft. The pilot peered over his shoulder to get a better view. In a heartbeat, the blurred image had vanished, disappearing into the darkness just as quickly as it had emerged.

He sat back, guessing the object's speed somewhere in excess of Mach 1.5. Every aircraft he knew would've had to use its afterburner to reach that speed, lighting up the sky for miles around with its overheated engines.

"Peacekeeper," an unfamiliar voice announced over the pilot's headset. "This is Gunfighter 5. Those three bogies won't cause you any more grief. I'll accompany

you back to Riyadh. Suggest coming about to heading 175 degrees, speed 445." The second aircraft had swung round his aircraft, slowly throttling back on its engines to maintain the same airspeed.

"Acknowledged, Gunfighter 5," replied the F-117 pilot. Straining to witness salvation, the pilot saw a much larger aircraft slowly re-emerging from the darkness. Roughly the size of an F-15, the other plane matched speed with the F-117, drawing up alongside his aircraft.

As dawn crept over the desert, shards of brilliant sunlight began illuminating

tem (JTIDS). Two small blips appeared on the monitor, one representing the F-117, a second, the F-22. The recently repaired and highly classified low-observable radar monitor gave the same information.

All was well, he mused, at least for now.

For well over two decades, the F-15 Eagle and F-16 Fighting Falcon have served as the backbone of America's air defense network. Brilliantly performing their primary missions as air superiority aircraft, these planes have winged their way over North America, Japan, Israel, Pakistan and Saudi Arabia, defending their airspace and, at times, the skies beyond. Once deemed state-of-the-art aircraft, both the twin-engine F-15 and less expensive single engine F-16 are beginning to show their age. Long capable of destroying virtually anything else aloft, in recent years these fighters —

even after undergoing several modifications and important upgrades — have slowly been eclipsed by more sophisticated designs entering service worldwide. Coupled with significant advances in air-to-air and surface-to-air missile technology, radar and

infrared (IR) guidance systems, avionics and sensors and the introduction of first generation, Low-Observable Stealth Technology (LOST), the end of a long and illustrious record of achievement seems to be drawing nigh.

Fortunately, a worthy replacement has proudly rolled out of the development hangar and onto the flightline. Designed as a super-stealthy air dominance fighter, the Lockheed-Martin F-22: Raptor has, as we speak, been cleared for takeoff.

HIGHWAY TO THE DANGER ZONE

To say that Interactive Magic's iF-22 flight simulator is every bit as impressive as the aircraft it so faithfully attempts to portray would be a sublime understatement. Even the US military was taken aback by the simulator's refined look and feel (see our accompanying sidebar). And why not? The design team went to great lengths to



the nearby aircraft. The F-117 pilot eyed the other craft, recognizing, for the first time, the blackened camouflage paint scheme, the strange, double-diamond wing configuration and angular contours of an F-22. The other pilot wiggled the wings of her aircraft, gesturing all was well, the Iraqi border now miles behind them.

One hundred miles away, onboard the AWACS early warning aircraft, the surveillance officer, along with several other crew members, peered into a bank of silent monitors. Radar and IR equipment slewed across the horizon, the reliable eyes and ears of the Air Force all but rendered impotent. The AWACS operators were unable to obtain either a radar or infrared track on any other aircraft operating within three hundred miles of their position. The senior captain leaned over the console and eyed the newly installed Navstar GPS receiver, data-linked to the Joint Tactical Information Distribution Sys-

"The Cyber-cockpit has a rich, photo-realistic charm about it which exudes sophistication."

model every physical attribute of the plane — even enlisting Lockheed-Martin's assistance where applicable — from its intricate and highly advanced sensors and avionics suite to the fully integrated helmet mounted displays worn by the real pilots. While a feat in and of itself, the system also addresses a variety of equally important criteria such as real-world ground mapping, multiple unit tracking and targeting, multi-mission roles, combat assets, in-flight communication and multi-player capability. But first, the aircraft.

To begin, the cyber-cockpit has a rich, photo-realistic charm about it which exudes sophistication. Virtually every known facet of the real aircraft has been quantified and replicated in the stylized cyber-cockpit, right down to the fully-functioning buttons circumnavigating the four digital MFDs. Although there's lots to ogle and touch, players will discover that they can maintain "situational awareness" at all times; able to panoramically slew their view across the entire cockpit, up or down, left or right.

A host of sensors and other related systems are modeled, including various active and passive radars, an IFDL (In-Flight Data Link) system — used to exchange information with other IFDL-equipped assets (such as AWACs aircraft) — and an automatically enabled IFF (Identify Friend-or-Foe) system employed to interrogate the type and nationality of other aircraft. Interestingly, the F-22 is not equipped with any laser targeting capability. So although the aircraft can deliver laser-guided munitions in a strike role, unless the target has already been "painted" by other platforms or Forward Air Controllers (FAC), weapons such as the Paveway GBU-16B will perform like much less reliable free-falling iron bombs.

The IFDL system, in particular, is an especially important component of both the aircraft and simulation. Whenever and wherever possible, the F-22 is intended to remain in its high stealth configuration, avoiding detection by keeping its passive and active radars switched off. The IFDL interprets targeting and tracking information passed on to it by other IFDL-equipped ground or air units and can therefore launch its weapons — from a stand-off vantage point — without ever having to visually or mechanically identify the potential target. A significant capability, in game terms the IFDL system is also

used to transmit text-based messages to anyone else connected to the player's IFDL circuit. Players can therefore use this secure, narrow-band frequency as a private chat line with other allied players without ever having to fear that their

mode, on the other hand, uses an open-ended architecture that can broadcast and receive scripted messages from *anyone* in the game. Players listening in can monitor any friendly or enemy radio traffic circulating over the real-time network. Finally,

AND THEN THERE WAS ONE

ON APRIL 9TH, THE UNITED STATES AIR FORCE, in a joint ceremony with Lockheed-Martin, Boeing and Pratt & Whitney, officially rolled out the first production model of the new F-22 super-stealthy, twin-engine fighter.

Originally dubbed "Lightning" by the military, the F-22 was rechristened as the "Raptor" — Bird of prey — after several pentagon officials had concerns about past use of the name. At the unveiling ceremony, the first aircraft had already been emblazoned with "The Spirit of America" logo adorning its upper fuselage.

Speaker of the House Newt Gingrich and General Ronald Fogleman, Chief of Staff, US Air Force were both in attendance along with many other leading proponents of the next-generation aircraft, including several members of the I-Magic team. The team was permitted to actually inspect the aircraft's exterior, including walking up to and even touching the super-secretive aircraft.

Following the ceremony, the team was also invited to visit and experiment with Lockheed-Martin's Concept Demonstrator, an unclassified aircraft simulator used by the company to illustrate the F-22's advanced technical capabilities and highly-touted avionics suite.



TOP: (from left to right) board member Joe McClelland, "Wild Bill" Stealey (Chief Executive Officer), Doug Kubel (VP of Engineering and Technology), Lynne Beaman (iF-22 Product Marketing Manager) and Michael McCoy (iF-22 Game Designer).

BOTTOM: "Wild Bill" Stealey at the control of the Concept Demonstrator.

integrity has been compromised.

Since the game is being developed to accommodate multiplayer capability, three other methods of communication are included in the game: Ultra High Frequency (UHF), Guard and Chat modes. The UHF band is essentially an audio- and text-based method of communication with other units transmitted over a specific, pre-defined frequency. Various scripted messages can be sent or received which can be "overheard" if someone else is "listening in" on the frequency. The Guard

the Chat mode permits players to type in text-based messages to any or all players he or she has designated in the message queue.

The Heads-Up Display, or HUD, portrayed in the game is reminiscent of most modern era combat flight simulators. Segmented into three operational modes — weapons, navigation and Instrument Landing System (ILS) — the HUD can visually display crucial information pertaining to each of the aforementioned systems on the aircraft. In conjunction with the HUD,

"Several recent aircraft designs are now capable of launching off boresight and even all aspect air-to-air missiles."

the F-22 contains four color-coded Multi-Function Displays (MFDs) which graphically monitor the combat, status and navigational profiles of the aircraft. If the player so desires, he or she may even customize the pre-configured modes, manipulating and redefining each MFD as they see fit. In addition, four Liquid Crystal Displays (LCDs) are situated above and below the MFD screens. LCD-based instrumentation monitor the UTM coordinates of the aircraft, altitude (in feet), the plane's air speed (measured in knots), and time. Still other switches control the engines, master weapons arming device, brakes, lights and other critical facets of the plane.

AIR SUPERIORITY OR AIR DOMINANCE?

As the game postulates, 21st Century pilots will purportedly no longer have any need to use hard copy maps, calculators, kneepads or anything else they currently use to assist in their mission planning. Instead, each pilot will tote a Personal Digital Assistant (PDA) into battle, which is designed to store and denote all of the information and other data necessary to accomplish the mission's goal. The PDA also serves as a clean, graphically-based front end device which is intended to interface with the various game parameters, setup screens and other options available.

In an effort to curtail the onset of tunnel vision — seemingly endemic to most flight simulators — I-Magic's *iF-22* will include 20 internal and eight external viewpoints to choose from. In addition, the "padlock" view will permit cyberpilots to maintain visual lock on any potential targets in range, while simultaneously allowing them to continue cycling through the many internal viewpoints available. In effect, players will still be able to check their bearings, weapon loadouts, the aircraft's RCS profile, damage or any other facet of the plane, while maintaining a visual lock on any nearby intruders. Although the padlock mode has been successfully employed in a variety of earlier generation flight simulators, its significance is magnified due to the fact that several recent aircraft designs are now capable of launching off boresight, and even all aspect air-to-air missiles which are capable of destroying the F-22 from a variety of positions.

While the simulation attempts to repli-

cate every known facet of the plane — yielding, wherever necessary, to highly classified information — perhaps the most important criteria of its success will ultimately lie with its in-flight capabilities, real-world modeling and responsiveness.

The player, acting as the leader of a

flight of F-22 aircraft, may dispatch his wingmen to patrol, attack or defend specified regions and airspace. Likewise, each aircraft will attempt to follow the player's orders to the letter, correcting for any formation changes, waypoint modification or combat maneuvering as accorded by the

EXORCISING THE DEMON?

THE DEMON-1 (an acronym standing for "Digital Elevation Model Optimization Number 1") graphics

engine used in the game has been crafted especially for *iF-22*. Essentially, the wondrous ground mapping engine marries actual satellite photography — obtained from various commercially-developed imaging systems — with real-world digital elevation maps, to deliver a rich, seemingly realistic textured effect. The photo-textured maps are digitally enhanced to include such topographical features as hills, ravines, rivers, valleys, etc., thereby providing an uncompromising appraisal of the world the computer-generated F-22 will fly within.

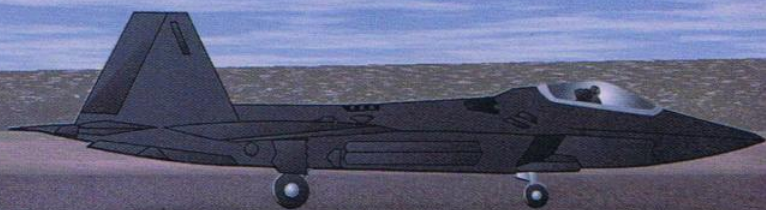
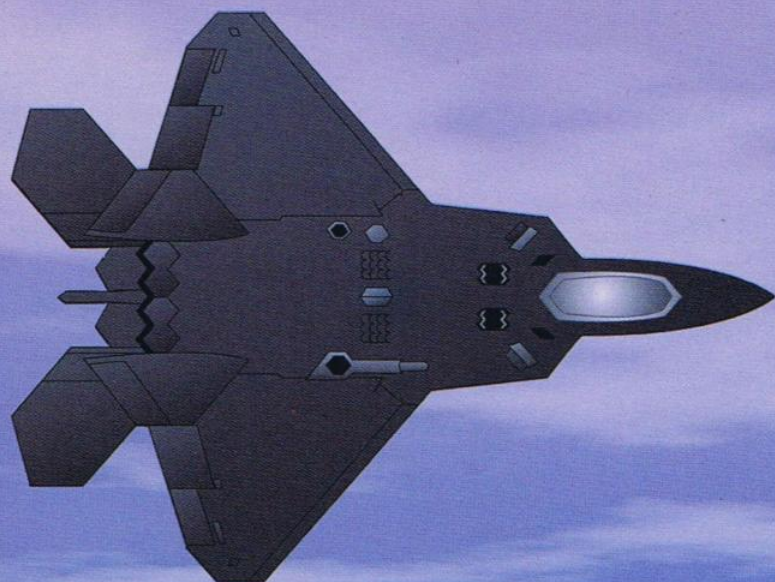
While the employment of digitally-elevated and photo-realistic maps are nothing new in flight simulators — Microsoft's *Flight Simulator* addressed the former issue, while games such as *Flight Unlimited* and *EF2000* addressed both — these games, nevertheless, lacked the depth of play and extensive database *iF-22* employs to model *entire* geographical regions. For instance, each of the two regions portrayed in the game — Bosnia and the Russian border states — each contain over 80,000 square miles of high-fidelity detailed terrain. In layperson's terms, that represents the equivalent of upwards of 200 x 400 miles of actual physical territory depicted, on a mile-by-mile basis. As a result, cyber-pilots will be able to swoop down low over the terrain, investigating such landmarks as the gorge at Mostar in Bosnia-Herzegovina, or the bluffs along the winding Dneiper River in the breakaway republic of the Ukraine. Gone are the spartan, polygon-based graphics of past simulators. In its stead, players will no doubt marvel at the rolling tapestry of fields, meadows, forests and such, doing their utmost to evade the snow-capped peaks of the Balkan mountain ranges, vault over the latticework of power lines criss-crossing the Ukraine.

These stunning visual effects take on tantamount importance, representing not only a watershed event for the company — who normally eschews cutting-edge graphics in favor of rendering highly accurate, speed-reliant gameplay — but serves notice to the rest of the industry that Interactive Magic is ready and able to compete on the highly competitive aesthetic front continually rolling in. When all is said and done, *iF-22 Raptor* is ready to take off as an early contender for simulation and, perhaps, best game of the year honors. Time will tell.



TOP, MIDDLE AND BOTTOM: The ground mapping portrayed utilizes the revolutionary DEMON-1 engine

THE F-22: WHAT PRICE GLORY?



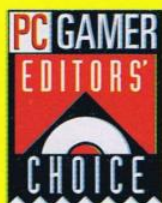
A though designed to counter the latest generation of Russian and French built fighters now being deployed, the F-22: Raptor is a formidable opponent, destined to serve as the mainstay of American air defense well into the 21st century. Although aircraft such as the French-built Mirage 2000-5 and Rafale, or derivatives of the Russian built Su-35 and Su-37 — the principal aircraft that may challenge the F-22 for air supremacy — do not themselves employ super-stealth technology, these aircraft exhibited enough significant improvements over previous designs and current Western technology to warrant a timely response. Each of these potentially dangerous adversaries featured important enhancements, ranging from new airframes and engines, to significantly upgraded avionics suites and even low-observable technology. When coupled with new weaponry — such as the Russian AA-11 Archer off-boresight missile and French MICA all-aspect, air-to-air missile — and next-generation radar and infrared (IR) surface-to-air and air-to-air detection equip-

ment, the development and deployment of an aircraft capable of meeting and defeating these threats was all but assured.

Intended to eventually work in conjunction with the across-service Joint Strike Fighter (JSF) currently under development by the US, the F-22 is intended to take up the slack left by the retiring and retasked fleets of older F-15 Eagles and F-16 Fighting Falcons still on active duty. Down the road, the F-22 may serve alongside improved versions of the proposed unmanned JASF, modified and strengthened to handle high-tolerance, 30+ g-force maneuvers — perhaps even acting as a command and control aircraft for the much more nimble but less tactically-effective JSF. While unmanned fighter aircraft are still several generations away, the F-22 was developed to transcend this interim period, providing more than adequate protection and firepower to ward off any known or foreseeable aggressors.

Looking back, the F-22 program isn't the overnight success story some might

lead you to believe. Way back in 1985, plans called for the development and near-term deployment of a sophisticated next generation fighter, dubbed the Advanced Tactical Fighter (ATF). Design specifications for the ATF called for the merging of the most recent and radical advances attained in Low-Observable Stealth Technology (LOST) — such as that employed on the B-1B Lancer low-level penetration bomber — with super-stealth technology, which has been so successfully integrated into the F-117A Night Hawk fighter and, more recently, the extremely expensive, nuclear-armed B-2 Spirit high-altitude, intercontinental bomber. Unfortunately, unlike the continual modifications and upgrade programs developed to extend the life expectancy of an existing aircraft, many of the principles and characteristics of super-stealth technology can not be retrofitted to any existing, in-service airframe. In its stead, the ATF was planned as a direct-to-purpose design which could, from its inception, employ these and other noteworthy improvements as part of an overall repackaging scheme.



"STARS! IS A WINNER"
PC Gamer - 88%

"The **BEST MULTI-PLAYER STRATEGY GAME** around!"
Computer Gaming World

"The gameplay is **FRUSTRATINGLY ADDICTIVE!**" *Computer Player*

"Stars is **AN EXCELLENT GAME!**"
Strategy Plus

"A **FAST PACED** game,
BRILLIANTLY CONCEIVED
extremely complex, with a lot of
long term enjoyment" *PC Zone*

OUT NOW!

Stars!



"The best game in any universe!"

empire
INTERACTIVE

Applying the lessons learned from the F-117 and B-2 to the ATF was initially quite vexing, since neither of these subsonic aircraft used or was equipped with afterburners for high-speed acceleration runs. Since the F-22 must routinely handle the stresses of supersonic flight (Mach 1 or higher) to arrive on scene and at various dogfighting altitudes, several techniques and types of radar- and IR-absorbing materials were experimented with in an effort to reduce, deflect and dampen the heat signature emitted by the twin high-performance United Technologies/Pratt & Whitney F-119-PW-100 turbofan engines.

Bear in mind that no aircraft is totally invisible to radar. Powerful short range radar systems can detect certain anomalies as they scan the skies for aircraft and other airborne intruders. To lessen the risk, then, aircraft designers have for some time experimented with various materials and shaping techniques which can dramatically reduce any radar or IR signature emitted by an aircraft.

Reducing the radar cross section (RCS) of the aircraft becomes a critically important issue for all concerned. A low-observable or super-stealthy design will enhance the aircraft's overall performance, in all likelihood improving mission performance while significantly increasing the chances that both the pilot and airframe will survive the mission. To reduce the RCS, radar-absorbing material (RAM) is applied to various wing and airframe components to absorb and refract much of the incoming radar pulses beamed at the aircraft by either ground- or airborne-based radar systems. Moreover, radar-absorbing structures are shaped around other hot spots — such as the engine inlets and cowlings — to help mask the aircraft's IR signature. In addition, cool air is deflected around the engine housing, mixing with the hot engine exhaust to reduce the ambient air temperature before it is expelled from the aircraft and into the outer atmosphere.

Specially designed and ceramically treated flat exhaust nozzles are also used to help dissipate some of the overheated exhaust, deflecting the residual vapor away from the aircraft's centerline. Dispensing with the weight and monstrous fuel expenditure of an afterburner, the new energy-efficient turbofan engines are therefore capable of delivering supercruise performance (Mach 1.58) for extended periods of time at altitude, lessening the risk of being detected by

either radar-guided or IR seeking missiles.

Vectored thrust nozzles were also employed, similar to those used on the AV-8B Harrier or Su-37 Flanker and associated variants, which further expands and improves the aircraft's flight envelope. The F-22 is more agile than even the exceptionally nimble F-16C; the aircraft is capable of executing short runway takeoffs and performs impressive in-flight maneuvers never before deemed possible with more conventional rotary or jet-propelled, fixed- or variable-geometry, swing-wing fighters. Like several designs already in service, the F-22 has a high thrust-to-weight ratio, permitting the pilot to initiate a vertical flight profile after takeoff, helpful in quickly attaining altitude, during evasion or dogfighting mode.

Although much of the aircraft has been shaped to help reduce the RCS of the aircraft, various combinations of RAM and radar-absorbing structures (RAS) are used to further reduce its reflectivity. Titanium and other materials — including low-yield kryptonite — are used to strengthen the airframe. Other areas of the aircraft, such as the leading edges of the wings, are rumored to be constructed of treated carbon composite material, again intended to absorb or refract whatever heat is generated by high-speed supercruise pursuit and maneuver.

To further lessen the RCS and reduce the effects of drag on the aircraft, weapons — such as the Hughes AIM-120 Advanced Medium Range air-to-air Missile (AMRAAM) and improved shorter-range AIM-9X Sidewinder AAMs — are stored in four internal bays: two main bays in the underbelly and two ventral bays, one on either side of the fuselage under the wings. Internal weapons storage to reduce RCS and drag is nothing new, since they were first experimented with on both the F-117 strike aircraft and B2 bomber.

In the F-22's case, specially constructed actuators snap the doors open and shut just prior to and immediately after a missile is launched, reducing the likelihood of aircraft detection by marauding enemy aircraft and SAM batteries. When activated, the missiles are fired off various hydraulically-extensible rail launchers, which recoil into the storage bay after the missile is fired. A powerful rotary-designed 20mm M-61A2 Vulcan cannon, an enhanced version of the gun used on virtually every other in-service American fighter, augments the F-22's awesome fire-

power, strategically housed and buried within the starboard wing root. The gun is situated well behind the starboard engine which, in practice, prevents any noxious exhaust gases from entering into the engine during firing. Like the missile firing system, the gun, even when firing, helps the aircraft maintain a low-observable profile. Doors snap open and shut immediately prior to and just after the last bullet has passed through the aperture. The F-22 can also carry an assortment of weaponry, guidance and extra fuel pods on four external pylons, but these loadouts compromise the integrity of the stealth configuration.

Other features found on the F-117, such as the curious double-diamond wing configuration, angular contours and fiercely swept back tail and splayed wings, were retained for stealth and performance reasons. The angular shape — similar in some respects to those found on the F-117 — in part deflects some of the heat generated by the powerful supercruise-capable engines. Largely though, it was designed to defeat an assortment of radar signals bombarding the aircraft from newer, and much more sophisticated, surface- and air-to-air, pulse-doppler based radar systems. The double diamond wings employed on the aircraft generates a different airflow pattern than the fixed-wing or variable-wings used on more conventional aircraft, improving the overall lift and weight-carrying capacity while working hand-in-hand with the dramatic improvements afforded by the supercruise-capable turbofan engines.

Like the F-16, the F-22 is a fly-by-wire aircraft, using various computer-assisted flight control systems to help fly and stabilize the aircraft. Since the aircraft is designed as a single-seat fighter, various decision-aiding and management-related high-technology computers and software have been integrated throughout the aircraft to forestall the added weight and system redundancies required with the incorporation of a Weapons System Officer (WSO), such as those mustered on the F-15E Strike Eagle, F-16D Fighting Falcon and planned F-16E Strike Falcon, or F/A-18E/F Strike Hornet. While the pilot of an F-22 might at first seem excessively taxed by the heavy workload — and certainly is less situationally-aware than his "four-eyed" F-15 counterpart — an assortment of vastly improved sensors, avionics, guidance systems and Multi-Function Displays have been implemented which will permit the pilot to

H o w t h e f u t u r e i s p l a y e d

Dream no more.

start a company
make a million
retire at the beach

"Playing out the American fantasy could not be easier or more fun."

Computer & Net Player

"Capitalism isn't just for those who aspire to be the next Michael Dell or Sam Walton. It can be a fun and useful exercise for anyone who wants to test their entrepreneurial mettle without, for once, taking any risk."

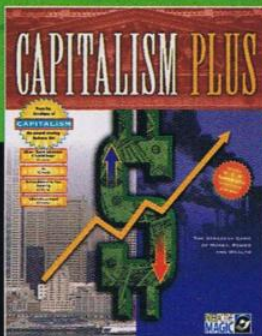
Paul M. Eng, Business Week

4 out of 5 stars

Computer Gaming World



Editors' Choice Award
PC Gamer



To obtain a copy, visit your local retailer or call 1-888-246-2442 today.

www.imagicgames.com
P.O. Box 13491
Research Triangle Park, NC 27709

Play solo
or compete
with a friend
via email or
hot-seat

Now with new Scenario Editor to customize game play, new graphics, new maps, new industries, and real-world markets.

Left: The prototype F-22 in flight over the North American Southwest.

Right: The F-22 cockpit looks every bit as real as the actual cockpit.

delegate much of the extra workload to a series of sophisticated onboard computers.

Furthermore, the F-22 pilot will be fitted with the new lightweight, helmet-integrated Heads-Up Display (HUD), which can track an enemy aircraft flying outside the viewable range of the standard HUD, affixed to the front of the cockpit. The helmet-integrated display — especially when used in conjunction with the latest generation of missiles featuring sleuable seekers (high off-boresight seekers) — permits the pilot to engage enemy aircraft offset from his aircraft's nosecone. No longer must a pilot maneuver into position behind an enemy aircraft to conduct air-to-air battles. Although various electronic and computer circuitry have been incorporated into this helmet, the new equipment is reportedly much lighter than either the older HGU-33 or newer HGU-55 helmets, thereby reducing neck and muscle fatigue during high-g maneuvers.

Procuring the F-22 and its associated equipment is by no means cheap. Initial estimates furnished by Lockheed to the Department of Defense (DoD) for a next-generation super-stealthy fighter aircraft, in 1985 dollars, was conservatively estimated at around \$35 million dollars per copy — roughly the equivalent of an advanced F-15E Strike Eagle. Since that time, budgetary constraints and cutbacks have had a dramatic impact on the plane's overall cost, skyrocketing the pricetag while decreasing the number of aircraft to be purchased. The curtailed fleet of 438 unladen aircraft are projected to reach \$100 million or more per copy, due in large part to the limited initial production run, which transitions to full-scale production sometime in 2001. While 438 aircraft represents only 1/3 the number of aircraft they've been designed to replace, the news isn't all that alarming. The F-22 is expected to perform brilliantly in its role as an ASF and, owing primarily to its unmatched stealth characteristics, advanced avionics suite and unrivaled computer guidance systems, should ably fill the shoes of several of the older, less capable designs.

Even before the first F-22 enters service, the Pentagon and various defense-related analysts have heralded the aircraft as a plane of unmatched magnitude, capable of sweeping the skies of all before it. Considering its known and classified capabilities, we think you'll agree.



leader. All computer-controlled aircraft — both friendly and enemy — are guided by a set of dynamic AI instructions and rules of engagement, tied into each pilot's record and likelihood of success. Past performance — including any awards or promotions each pilot may have earned — are taken into consideration, as is aircraft damage, weapon loadouts, flight profiles, etc. to determine the probability of success or failure.

Due to its stealthiness the F-22, on occasion, is expected to carry out a variety of roles including strike missions. While fixed emplacements, such as command



and control bunkers or missile sites, may be delineated as opportune targets, the F-22 will also seek out and destroy more mobile ground targets such as SCUD mobile missile launchers or enemy ground formations on the move. Pleasantly, the simulation does an able job of portraying both, including a wide array of both static, mobile and even fully animated targets to eradicate. Both American and Russian arsenals are depicted, setting the stage for the two theatres of operation highlighted in the game: the Balkans and the Ukraine.

Since the F-22 is a fly-by-wire aircraft, using a system of computer relays and actuators to stabilize the aircraft during in-flight maneuvering, handling degrades in direct relation to the extent of aircraft damage taken. Moreover, the aircraft's radar cross section (RCS) — or likelihood of being detected by enemy radar — rises dramatically if the aircraft's speed exceeds its supercruise threshold, or if the doors masking the internal storage bays are left open for extended periods of time.

iF-22 sports seven vastly different and unique styles of gameplay. Players will be able to select from amongst Instant Action — a high-intensity dogfight-driven con-

test that doesn't entail the player learn every aspect of the aircraft to play; training missions — which helps hone the in-flight skills of the would-be pilot to a keen razor's edge; single missions — designed to improve the pilot's success rate during various stages and mission profiles; and campaigns — a series of interlinked missions integrated into the overall war effort. Player progress, both good and bad, will influence the course of the war, graphically illustrated on the constantly shifting Forward Edge of the Battlefield Area (FEBA).

A trinity of distinct and altogether dif-



ferent multiplayer modes will also be included. Players can compete on a one-on-one basis in the Head-to-Head Dogfight mode, or they may enlist in Capture the Flag. In the latter, two teams are formed — employing both air-to-air and surface-to-air assets, such as SAMs and AAA — and the object is to capture the neutral air base by landing a C-17 cargo plane on their runway. Finally, players can ally themselves with other players in the Cooperative Single Mission mode. Any combination of human and computer-controlled aircraft will serve as the player's wingmen to accomplish a predetermined goal.

DOMINATE AND DECIMATE

Without dissension, Interactive Magic's *iF-22: Raptor* stands at the zenith of consumer-based combat flight simulators; far and away surpassing the competition in terms of aesthetics, realism and ambient characteristics. Combining stunning, exotic visuals, superior gameplay, highly dynamic environments and extremely accurate flight modeling, *iF-22* seems destined to attain simulation stardom, readily poised to decimate each, if not all, of its like-minded virtual contenders. **COC**

Between the Devil and the Deep Blue Sea

By Marc Dultz

"Torpedo room, fire control, make tubes one and two ready in all respects, including opening the outer doors."

The reply was mechanical, if youthful.

"Make tubes one and two ready in all respects, including opening the outer doors, aye."

"Sonar, range, speed and bearing to target?"

"Master 3 has neared the outer range marker. He's 41,000 yards distant now on course 175 and still proceeding at eight knots."

It was time. The fire control coordinator and BSY-1 operator adjusted the TMA solution, compensating for any last-minute changes reported by sonar.

"Sonar, conn, stand by."

"Conn, sonar, standing by."

"Match sonar bearings and shoot tubes one and two."

"Match sonar bearings and shoot tubes one and two, aye."

New lights winked on the three BSY-1 fire control computers as two torpedoes were expunged from the sub. The combat systems officer tersely announced that tubes one and two had successfully fired electrically. Seconds later, both torpedoes executed their wire-clearance maneuvers and swiftly headed in the direction of their prey.

"Conn, sonar, torpedoes one and two running hot, straight and normal."

"CSO, what's the time to acquisition?"

The combat systems officer checked the computer.

"Fifteen minutes, thirty seconds, Captain."

The XO dabbed away some sweat trickling down his forehead. As time continued to creep by, more men followed his lead.

"Sonar, any news on that boomer?"

A Russian Typhoon class SSBN was lurking somewhere under the ice. Their task had been to breach the bastion, then locate and destroy the ballistic missile submarine.

"Conn, sonar, nothing on the spherical, conformal or basic towed arrays. We've got something faint on the TB-23 at bearing 070."

"Understood, designate that bogie as Master 4."

"Conn, sonar, designating unknown as Master 4, aye. Conn, Master 3 is increasing speed and turning away. He's popping noisemakers and cavitating, sir."

"Sonar, conn, steer the weapons."

Information was transmitted from the BSY-1 computers along the thin wires unraveling from the torpedoes to the attachments located inside the submarine's torpedo tubes. The sophisticated Mark 48 torpedoes were electronically instructed to ignore the decoys and sudden knuckle of water.

"Conn, sonar, both torpedoes have pierced the enemy's countermeasures. Their seekers are active and have acquired the target."

"Conn!" the voice was more energetic now. "Torpedo in the water, bearing 185 degrees."

The Russian sub had fired a snapshot while attempting to evade the incoming torpedoes.

"Understood. Cut the wires and close all outer doors. Officer of the Deck,

dive to 700 feet, increase to flank speed and come about to course 290."

The Akula vainly continued to run, quickly hurrying away at flank speed. The torpedoes pursued, outpacing their quarry by switching over from medium to attack speed. As the torpedoes assumed their pre-programmed attack profile, it became evident that it was a race with but one logical, if deadly, conclusion.

Back on board the *USS Columbia*, an improved Los Angeles class SSN, the sonar operator heard the telltale signs of a massive explosion some thirty-five thousand yards distant. Their target, like the others before it, was an Akula II submarine and pride of the Red Banner Fleet. One torpedo had struck an ungainly rock formation, causing a massive underwater landslide and unexpected tonal disruptions. A second, though, struck amidships, rupturing the Akula's reinforced titanium hull on the port side.

As pipes burst and several compartments flooded, the Akula's crew valiantly struggled to save the doomed boat. Down it went, uncontrollably sinking into the inky blue abyss off the coast of Greenland. When the Akula had descended past twenty-two hundred feet, the sonar operator on board the *Columbia* heard the distinct, unmistakable sounds of what seemed like crystal shattering; the Akula's hull had burst. Having exceeded its dive limitations, the sonar operator passed on the news that they had just finished off a third submarine in less than an hour. Celebration would have to wait, though.

A torpedo was inbound and their primary target, now masked by the explosions, still lurked somewhere beyond, its thermonuclear missiles already warming up for launch....

Silently prowling beneath the wind-whipped waves,

combat submarines have, in one form or another, patrolled the ocean's depths for well over two hundred years. Translated rather innocuously as meaning "below the water," their presence, for many years, could only be crudely



confirmed by either the wake of a homing torpedo or the smoldering ruins of a lifeless, sinking surface ship.

Interestingly, workable military submarines were actually first introduced by the American Continental Army early on in its War of Independence with England. Exhibiting a rugged if strange, egg-shaped design, the fledgling "Turtle", as it was dubbed, set sail out of the Boston dockyard in 1776 to pierce the British naval squadron anchored just outside the harbor. With room for just one dedicated if untested crewman, plans called for the valiant sailor to maneuver his craft into attack position by working an extremely taxing, hand-cranked screw and rudder.

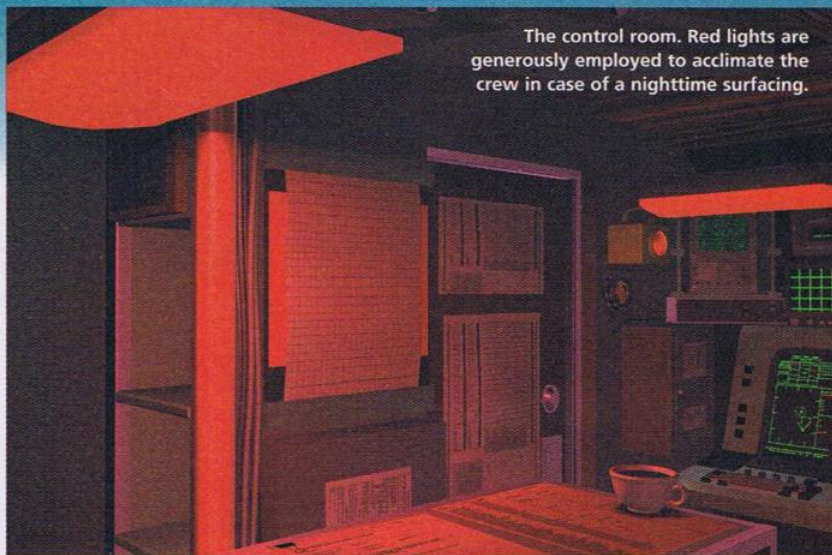
Bobbing to and fro in the still, dark night, our hearty little patriot shoved off from the relative safety of the wharf, eventually submerging his curious little vessel near the unwary *HMS Eagle*. Quietly approaching the British warship, he then proceeded to drill a hole into the bottom of the English ship and attempted, in vain, to attach a waterproof bomb to the *Eagle's* hull. While the action met with dismal results, the event marked the first time a submerged vessel had ever attempted to destroy a surface combatant.

Since that time, the role of the modern attack submarine remained the same for well over a hundred and fifty years. Time and again the submarine, especially the infamous German U-Boats of World War I and II, struck fear into the heart of the civilian populace and military clique. In the last fifty years, though, the introduction of new classes, types and capabilities of submarines have initiated radical doctrinal as well as procedural changes for today's sub-

marine force. Even their primary targets have been revised. While previous generations of attack submarines were tasked with the detection and sinking of enemy merchant shipping and surface raiders, the principal mission of today's attack submarine is to seek out and sink a far deadlier adversary; another submarine.

While the hand-cranked screw has given way to any number of keener, more sophisticated propellants, the emergence of nuclear propulsion in the mid-nineteen fifties meant that submersibles, for the first time, were finally capable of deploying submerged for extended periods of time. No longer tethered to their logistical base of operations, nuclear submarines could and have stayed submerged for months at a time, surfacing for refit, repair, liberty call and, as more often is the case, when their available stock of provisions has been totally exhausted.

Like the propulsion systems, weapons technology has improved dramatically over the past half-century. The advent and proliferation of nuclear armament has spurred profound changes regarding the likely platforms, theatres and possible ire of future conflicts. While warfare in the atomic era has thus far been contained to either conventional conflicts or low-intensity brush wars, and M.A.D. (Mutually Assured Destruction) was forged and adhered to by the superpowers as a startling yet reliable deterrent to possible nuclear exchange, the potential nevertheless exists for a nuclear attack initiated by a rogue regime, terrorist group or unaligned third world state.



The control room. Red lights are generously employed to acclimate the crew in case of a nighttime surfacing.

Whereas the breakup of the Soviet Union has lessened the likelihood of nuclear war between the once-principal and former antagonists, the fact remains that the CIS teeters on economic ruin, and to this day remains strapped for hard currency. The Western intelligence community continually monitors the situation, well aware that several nations are more than capable of acquiring, or are already in possession of, a variety of intercontinental ballistic missiles and the necessary land and sea-based platforms with which to launch them. Now add to this equation the need to protect our own ships and sea-based nuclear assets from hostile action (the SSBNs, or nuclear-powered strategic ballistic missile submarines, account for upwards of 50% of our nuclear arsenal due to the Start II treaty), and you can readily appreciate why our continued vigilance, even after the conclusion of the Cold War, can never fully diminish.

Although the inherent problems are many, our solution for many years now has been simple yet devastatingly effective. Enter the nuclear-powered attack submarine, better known as the SSN.

IN THE NAVY

No stranger to high-tech military simulations, Electronic Arts — taking advantage of the creative, technical and programming skills provided by Sonalysts, Inc. in Waterford, Connecticut, and the unsurpassed informational services granted them by the Jane's Information Group — are themselves in the final stages of replicating and launching their newest simulation on contemporary undersea warfare. In fact, based upon our early look in December, EA's upcoming *688(I) Hunter/Killer*, in no uncertain terms, promises to do to sub simulations what their previous collabora-



tive efforts have already accomplished for both fixed-wing and rotary-based flight simulations.

As mentioned earlier, Sonalysts, Inc. was entrusted by EA to design and develop the game just a scant year ago, back in February of 1996. Although Sonalysts had never before undertaken a commercially viable project, their long list of credits with the Department of Defense (DoD) served as a heady barometer with which they could be readily gauged (see the sidebar on Sonalysts).



Indeed, poker-faced Sonalysts, Inc. even played two trump cards few commercial software houses could ever hope to be dealt, much less match. Not only does their main facility at Waterford, CT lie just minutes away from the U.S. Naval base and vast Submarine School complex at Groton, but they employ several highly-esteemed ex-submarine skippers and former naval crewmen. Each is well-versed in former and current military affairs and trends (read our accompanying interview with Captain Terry Jones, USN, Retired), and many possess intimate knowledge regarding the strategies and tactics of modern submarines and pursuant ASW systems and combat.

Due to a refreshingly unique infrastructure which spurns layer upon layer of corporate and managerial redundancies, Sonalysts was also capable of quickly drawing upon and siphoning off a team of talented in-house programmers and experts from other areas within the company. Many of these same individuals have already contributed immeasurably to a variety of defense-related projects and systems originally developed for the US Navy. With Kim Castro, a sixteen-year veteran of the firm and former Destroyer Escort Officer, at the helm, the Sonalysts crew was ready to embark upon what they deemed familiar, but unquestionably untested commercial waters.

RUN SILENT, RUN DEEPER

As if mired in a swirling whirlpool, EA has been drawn, time and again, to the undersea realm of submarine warfare. Previous efforts have included *688* and *Seawolf*, two contemporary submarine simulations that met with lukewarm acceptance by the gaming community. While many publishers would be proud to call *688(I)* their first serious sim, EA heartily acknowledges that Sonalysts'

Sonar operators have several screens to monitor including this waterfall display.

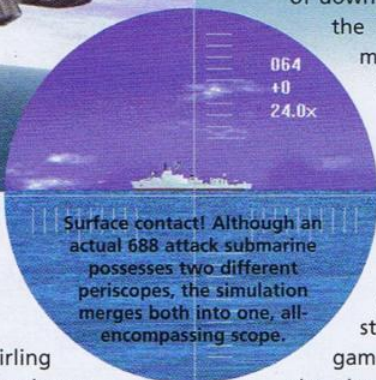
out-of-house design represents EA's third installment which pays homage to the vaunted Silent Service. Criticism concerning the first two EA releases ran the gamut of chiding, with comments ranging from arcadish and unrealistic to outright dull. Broaching the last and possibly harshest rebuke may be somewhat vexing since, as Kim Castro calmly points out, "combat, especially the undersea variety, is typically comprised of 99% boredom and 1% sheer terror." Submarine simulations, especially World War II-based sims, have always been plagued by boring interludes of tedium and seeming inactivity. Equipment, even as late as the Second World War, was relatively crude by today's standards. Submarines often had to surface at night or come up to periscope depth during the day to message their allies, recharge their diesel batteries or acquire targets. Recognizing the inherent dilemma, the new design team was indeed fortunate that their first project was to be based on a modern-day sub; the technological leaps of the last fifty years precluded any need to implement overly creative or artificial means to while away the time.

Dovetailing neatly within the overall design scheme, *688(I)* addresses the issue of downtime by calling attention to the fact that submarine commanders ordinarily use the time to communicate with other sea, air and land assets, gathering intelligence on enemy undersea, surface and even aviation contacts and, if need be, preparing for combat. Utilizing a series of stepped-up tutorials, the game, in effect, slowly educates the player on how best to use and

interpret what some might otherwise view as a bewildering array of sophisticated equipment and unfamiliar operational procedures. After all, apart from a few glamorous movies and high-tech thrillers of recent years, the general public's understanding of modern undersea combat still invokes periscope sightings and cascading depth charges.

With some practice and a little persistence, players should undoubtedly comprehend everything there is to know about a *688(I)* sub, including learning and interfacing with a broad spectrum of high-tech gadgetry. Each of the seven tutorials (a.k.a. training missions) focuses on a specific apparatus, operational procedure or mission, thereby teaching the player a multitude of tasks over a course of several encounters. Each mission is specifically designed to facilitate play while softening the learning curve. Training missions are all-encompassing; spanning the deployment and interpretation of data obtained from bathythermographs, intelligence-gathering, tracking, identifying and killing targets, avoiding detection and evading incoming torpedo attacks.

Although the designers recommend that players educate themselves on the comings and goings of the boat's systems, the simulation can offload some of the overwhelming responsibilities and duties to a computer-controlled assistant. Prior to and even during play, the player can designate which station he or she prefers to manage, and which are to be manned by the adroit computer. Of course, assistance comes at the cost of proficiency. Players



A *688(I)*'s weapon loadout can include, among other things, Mk 48 ADCAP Torpedoes, Harpoon anti-ship missiles and Tomahawk cruise missiles.



Hollywood, Eat Your Heart Out

For the uninitiated, parent organization and privately owned Sonalysts, Inc. (formed from the contraction of "sonar analysts") has stood as a

viable subcontractor for the DoD and US Navy for well over twenty-five years. Unfortunately, with the end of the Cold War, the so-called "peace dividend" reaped by the US government has spurred across-the-board scalebacks and cutbacks for virtually every major and minor contractor working with the DoD. Like most contractors then, Sonalysts discovered that the drawdown in US forces, and scalebacks in future military programs, meant that they needed to quickly diversify if they were to survive the fiscal deprivation of the nineties and beyond.

Sonalysts realized none-too-soon that they could no longer "place all of their eggs in one basket." Whereas the DoD at one time accounted for almost 95% of Sonalysts' earnings, projected earnings as of 1996 arising from DoD-related contracts are expected to account for no more than 70% of their revenue pie. Indeed, while other prime contractors and subcontractors have had a tough time coming to grips with the DoD cutbacks, Sonalysts has been expanding. In 1995, sales for the 450-member firm exceeded \$45,000,000. Plans call for outer year earnings in the commercial divisions to increase significantly and, depending upon how well *688(I)* and their second unannounced endeavor are received, forecasts may need to be revised upwards.

While a newcomer to the field of computer entertainment, Sonalysts coupled a vast collection of data and expertise in DoD subcontracting, with a staff of first-rate programmers, graphic artists and ex-naval personnel. Together, their unmatched record of hands-on experience in the field of sonar development and various combat systems made them a logical choice to broach the highly secretive world of submarine warfare.

Sonalysts has already created somewhat of a name for themselves in the field of corporate-sponsored multimedia development and programming. ESPN has already utilized several of Sonalysts' cedar-lined, state-of-the-art soundstages for a number of their sports-related profiles and documentaries. Time-Life, on the other hand, tapped Sonalysts to develop their Time-Life series of medical reference books. The expansive stage Sonalysts created employed a high-tech, widescreen TV and an array of smaller monitors housed in an ultramodern, handcrafted set. The award-winning reference series, which was hosted and narrated by former Surgeon General C. Everett Koop, also integrated a sophisticated matrix of computer animation and video elements, all of which were created in-house.

Although their talents are many, some have privately argued that Sonalysts' affiliation with the Navy could compromise certain national security arrangements. In fact, when the company submitted their original game design proposal to the Navy for review some months back, several Pentagon officials were concerned about the amount and level of detail earmarked for inclusion in the simulation. Certain information warranted downgrading to present a more conjectural, rather than detailed overview of a 688's combat, stealth and intelligence-gathering capabilities. Never one to abrogate their responsibilities, Sonalysts acquiesced and has reengineered certain aspects of the sub simulation to appease their governmental ties. In the end, even though a great deal of information about submarine operations has been declassified and discussed at length since the close of the Cold War (consider perusing Tom Clancy's nonfictional *Submarine* or his *SSN* yarn), certain national defense-related criteria are still, and may forever be, blacked-out for public consumption. We understandably agree.



Back Row Left to Right: Terry Jones, Tod Swain, Scott Martin, Rob Costello, Kim Castro. Front Row: Mike Kolar, Mel Davey.

will rapidly discover that the computer-controlled assistant is initially quite plodding and, as the case may be, inaccurate at rapidly interpreting and analyzing incoming data. The computer-controlled assistant will, however, improve with time as missions are completed and overall crew ratings rise. Be forewarned, though: As tensions rise, so do the pitch and intonation of the crew's voices. As incoming torpedoes bear down on the sub, various crew members shrilly demand to know what you, as the captain, plan to do to foil the attack.

THE NICKEL TOUR

Because the submarine will be sailing through both deep and shallow waters, and into either "deloused" or dangerous regions, sharper game play will require becoming adept at deploying and using various methods of communication. Harkening back to the issue of authenticity, the player may have to detach from combat patrol, and ascend to periscope depth to deploy the high speed SSIXS (Submarine Satellite Information Exchange System) antenna, or descend several hundred feet to employ the slower but safer VLF antenna. The radio room, which houses the Communicator's station, contains several screens tasked to monitor each of the many frequencies and systems available on board the sub.

While some submarine sims emphasize action over drudgery, *688(I)* permits the player to adjust the level of difficulty as they see fit. For instance, players can, if they so choose, increase or decrease the burden of assessing information and data, thereby increasing the likelihood of achieving a better overall score. A variety of ship-board stations and screens are depicted, each meticulously researched and as faithfully modeled as governmental restrictions will permit.

Remaining stealthy at sea is essentially no different than that ascribed to by today's modern aircraft. Beyond certain architectural modifications, streamlining techniques and various sonar or radar-absorbent material coating the outer surface, the submarine evades detection much like an aircraft. Sub skippers avoid long-duration, high-speed acceleration runs, staying off the surface and listening for signs of enemy activity. Furthermore, subs must initiate sprint and drift maneuvers, analyzing their environment with every change in station. Small,

SSXBT bathythermograph probes are launched, which shoot to the surface, then descend toward the bottom. The probes measure the rising and falling temperatures, and extent of thermal layers in the sampled column of water. This information is particularly useful since temperature layers can mask the acoustic signature and whereabouts of a submarine. To reflect this accurately, 688(I) contains screens not only depicting dive and helm stations, but one which monitors the thermal information obtained from the bathythermograph probe.

Soon to be augmented, but not replaced, by the more powerful and more expensive Seawolf attack submarines (see the 688(I) submarine sidebar), the 688(I) boat is no slouch when it comes to sporting other state-of-the-art equipment. For instance, several very different sonar screens are modeled in the game, depicting a variety of displays ranging from waterfall to narrow band-frequencies. Active intercept is also included, as are demodulation and apparatus for identifying various acoustic signatures.



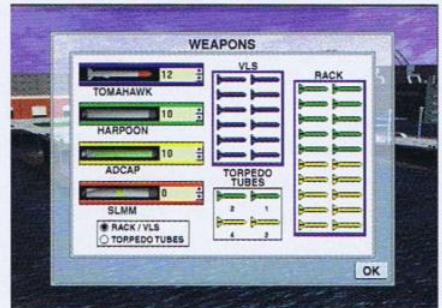
Much as they do in real life, sonar information is then fed into the TMA, or "Target Motion Analysis" computer for verification and pinpointing of the target, which is then passed along to the operators manning the fire control computers. Depending upon the target and mission parameters, the player must decide what types of ordnance to employ then egress home.

The 688(I) submarine as seen from one of the external camera viewpoints.

The weapons loadout, like virtually everything else in the sim, is extremely comprehensive. Although the Los Angeles class attack submarine can shoot the

extremely reliable Mk 48 ADCAP (Advanced Capability) torpedoes and discharge especially nasty canisters of delayed-action mines through standard, conventional tubes, the sub is also capable of standing off and firing a mix of either Tomahawk or Harpoon cruise missiles.

Once launched, the player can track the progress of any weapon courtesy of several external camera perspectives. Included



somewhat as a concession to game play, the four external camera angles (ranging from an over-the-shoulder chase mode to a fly-by panoramic shot) can be adjusted accordingly and serve as an entertaining, if

SEE JANE RUN, AND RUN AND RUN



Jane's central office in the UK.

Some legends take time to mature, while others seemingly occur overnight. In the case of the British-held firm of Jane's, their notoriety and acclaim, oddly enough, transcended both. Although the firm was heralded as an overnight success back in 1898, it took Fred T. Jane, founder and author of the first referential guide, the first 33 years of his life to see it through to fruition.

Now celebrating its centennial birthday, Jane's has remained at the forefront of military research, analysis and publishing throughout the twentieth century. Independently funded and operated, the civilian-based company blossomed from very humble beginnings.

In fact, Jane's can trace its roots back to the time when Fred created a sketchbook of warships which he later named "Ironclads of the World." In time, he was commissioned by a magazine to elaborately depict Kaiser Wilhelm II's combined fleet at Spithead. Realizing a certain measure of success from his efforts, Fred Jane eventually decided that the time was right to strike out on his

own. In 1898, he published *Jane's All the World's Fighting Ships*, a comprehensive pictorial and intensively-researched examination of the various ships and navies of the industrialized nations. His collection of illustrations and black-and-white photographs were unsurpassed, and quickly became one of the most monumental military and literary works of the time. In fact, several countries were so impressed by the milestone that they utilized the compilation as a means of educating their own junior officers on ship recognition and naval intelligence.

Always the pragmatic theorist, the birth of manned flight in 1904 did not go unnoticed by the defense-minded Jane. The Wright Brothers' achievement was a significant accomplishment, both in a historical as well as military sense, and in 1909 he published another milestone, *All the World's Airships (Aeroplanes and Dirigibles)*.

Sadly, his success story was short-lived. In 1916, just eighteen years after his first volume had been published, Fred Jane passed away at the age of 51. Fortunately, his passing did not signal the demise of a company or the end of a dynasty. His dedicated impartiality and perseverance for accuracy have spurred others on to continue the tradition of excellence he so desperately strove to attain.

Inspired by his work, his editorial associates and contemporaries have since gone on to publish a mind-boggling array of technical information for both public and private consumption. Today, the Jane's Information Group regularly publishes a series of global defense-related products — including pamphlets, supplements, magazines, yearbooks and reference libraries — all of which readily live up to the meticulous attention to detail set down by the company's founder. *Jane's Fighting Ships* and *Jane's All the World's Aircraft* serve as just the cornerstone of an entire series of products and services, which provide the finest and foremost source of information pertaining to current and future weapons platforms and combat systems. In addition, Jane's has branched out into the civilian sector, and regularly produces a wide-ranging series of reports and studies on various modes of modern transportation.

For additional information regarding the Jane's Information Group, you can contact them by phone at (800) 243-3852, or by accessing their World Wide Web-based Internet site at <http://www.Janes.com>.

unrealistic, way to confirm a kill, weapon malfunction or intercept. In fact, players can even view the 688 boat from an external vantage point, not to mention any objects or positively identified enemy contacts within range of the boat. Again, while unrealistic, the external vantage point is particularly useful when you're trying to navigate in shallow waters, through minefields, or into narrow shoals.

DEBRIEFING

Acting as the boat's captain, the player must periodically interact with upper echelon between and even during heated encounters. As the player will quickly discover, mission parameters may, and invariably will, be modified in accordance with updated tasking orders and intel issued by naval command. The player, therefore, must learn to become cunning while remaining vigilant, even when stalking

potential prey or evading dogged pursuers.

After each mission, player performance is tallied and analyzed based upon the prevailing mission criteria, then critiqued by the player's squadron commander. Depending upon the results attained, the canned video segues depict a commander assuming and acting out one of five distinct profiles, ranging from a friendly mentor to a pugnacious, vein-popping drill instructor. In port, players may also improve their boat, upgrading various systems, ordnance and supplies as they see fit, by trading in highly-trained crew members for improved equipment.

After the player has mastered the seven training missions, players can opt to play any one of over ten independently-based missions or the all-inclusive campaign game. Be forewarned, though; the campaign game is not intended for the faint-

hearted or adrenaline-seeking enthusiast. Players electing to sign up for the grand tour will eventually battle a variety of foes, shuttling between four regions of increasingly hazardous missions. Initially, your 688 boat will be ordered into the Caribbean to face off against the Cuban nationals or Colombian drug cartels. Next there's the Mediterranean, your principal adversaries taking up residence on the sandy beaches of Libya, then the mountainous coastline of the Balkans. After that, you'll be tasked to sail into the hotly-contested, oil-rich world of the Persian Gulf. If you've made it this far, you'll be sent to the top of the world and the frigid wasteland in the northern Pacific.

The fictional account preceding this piece does precious little to describe the many duties and backdrops associated with submarine warfare. While trespassing under a glacier-strewn ocean may serve as one test of your skill, you will be required to ply your

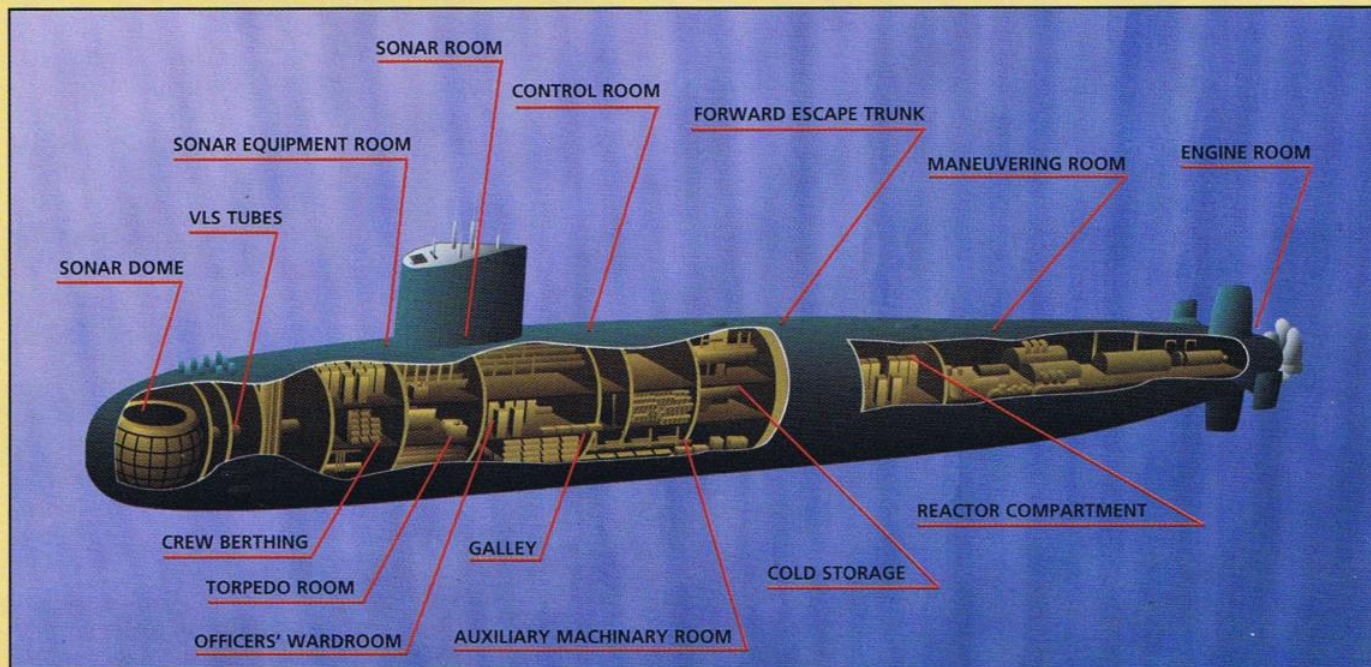
HISTORY OF THE 688 LOS ANGELES CLASS SUBMARINE

Designed during the civil and military upheaval of the late 1960s, the 688 class of submarines were produced largely in response to what was then viewed as the newest generations of Soviet subs ever to enter service. Built to counter the Soviet Union's sleek new fleet of ultra-quiet Victor, Sierra and speedy Alfa attack submarines — and designed to replace the aging fleet of Sturgeon-class attack submarines still serving with the Navy — the first boat, christened the *Los Angeles*, was finally commissioned in the late 1970s.

Seen as a major improvement over both its predecessor and potential adversaries, the first production run was limited to 12 boats due to certain upgrades and modification scheduled for inclusion in future models. Later designated as Flight I boats, the first dozen, although much more stealthy and nimble than any other sub, were viewed as a compromise, trading off advantages gained with stealth and speed for weapon stowage capability and new diving constraints. Although faster and quieter than any other US sub, the 688

owed much of its speed to its thin hull. Thinner than either the Permit or Sturgeon class, the 688 was therefore unable to dive as deep as its predecessors. Furthermore, the Flight I boat possessed a smaller torpedo room than either of the former types of boats, and therefore was restricted by the number of weapons it could carry.

The next production run of 688 boats, designated unceremoniously as Flight II, remedied many of the problems encountered with the Flight I series. Almost two dozen strong, the newer boats were elon-



craft by sailing into and out of harm's way on several quite perilous missions. Scenarios include SEAL team insertion and extraction, protecting and/or destroying surface assets, land strikes, hunting down rogue subs, and rescuing downed pilots before they become shark food. Meanwhile, the designers have seen to it that your voyage, as they say, "will remain eventful." Your 688

BELOW: The Jane's on-line encyclopedia can be accessed at any time for referential purposes.



gated to accommodate the new and more versatile VLS array (Vertical Launch System) located astern of the torpedo room. By including a twelve-tube VLS array, the Los Angeles class attack submarine not only increased the number of weapons it could carry, but in so doing improved the weapons loadout as well. VLS was capable of launching the sea-skimming Harpoon anti-ship missile, or either of the newly-developed Tomahawk cruise missiles, which could supplement the Harpoon or strike targets hundreds of miles inland. The Flight II boats were fitted with an innovative anechoic/decoupling coating which, although adding a certain amount of drag to the 688's sleek design, dramatically reduced the ambient noise generated by the submarine. The coating also reduced the boat's sonar profile, absorbing much of the pulse emitted by active sonars. In addition, the Flight IIs incorporated the recently-developed high-output S6G nuclear reactor which, even with the specialized coating, was capable of increasing the speed of the boat to 35 knots.

The final enhancements came with the introduction of the 688(I), also known as the Improved Los Angeles class. The 36 or so 688(I) boats merged all of the improvements first introduced in the Flight II boats with new advances in computers and a more effective hull design. Dive planes, originally placed on either side of the fairwater or sail, were removed and re-positioned on either side of the hull near the

will be expected to dance its way through newly-laid minefields, and slither out of the path of marauding subs and homing torpedoes. A water park for the insane, yes?

For good measure, 688(I) comes packed with a robust mission editor, capable of replicating a potential encounter (using any of the included weapon systems described in the accompanying Jane's Reference database) anywhere throughout the world. Since multiplayer gaming seems to be gaining in popularity, EA plans to also

BELOW: A 688(I)'s weapon loadout can include, among other things, Mk 48 ADCAP Torpedoes, Harpoon anti-ship missiles and Tomahawk cruise missiles.



bow. This modification permitted the sub to conduct more effective and extensive under-ice operations, allowing the sub to use its fairwater as a battering ram with which it could break through thick ice floes. In addition, the 688(I) was fitted with the robust and highly secretive BSY-1 fire control computers. The BSY-1 permits the Officer of the Deck to effect a much smoother transfer of raw information from the tracking computers to the targeting computers. Once a target motion analysis is determined, the information is then handed-off to the BSY-1s for a quick and accurate fire solution.

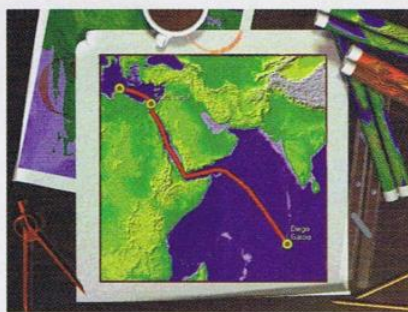
Nearly 25 years after they were first introduced, the Los Angeles class of submarine still represents the finest and most lethal attack submarine ever to set sail. Various upgrades and modifications have ensured that the 688(I)s will continue to patrol the ocean's depths, remaining a vigilant if covert deterrent for some time to come.

include valuable modem/network support, and promises to release a separate mission disk which will provide even more challenging play.

NOT JUST A JOB, IT'S AN ADVENTURE

Surfacing for all the world to view sometime this Summer, 688(I) Hunter/Killer's computer-relegated sea trials were quite impressive. Considering the wealth of information included and depth of play depicted, 688(I) seems destined to break new ground as a simulation first, while successfully modeling the intriguing, and oftentimes overlooked, undersea world of contemporary submarine warfare. While some may balk at the sheer complexity portrayed, we're guessing that most will welcome the game for what it truly is; an educational yet entertaining vehicle that doubles as a worthy new addition to the Jane's combat simulation lineup.

BELOW: An overhead map which shows the route of the submarine as it transits the Indian Ocean.



FURTHER READING

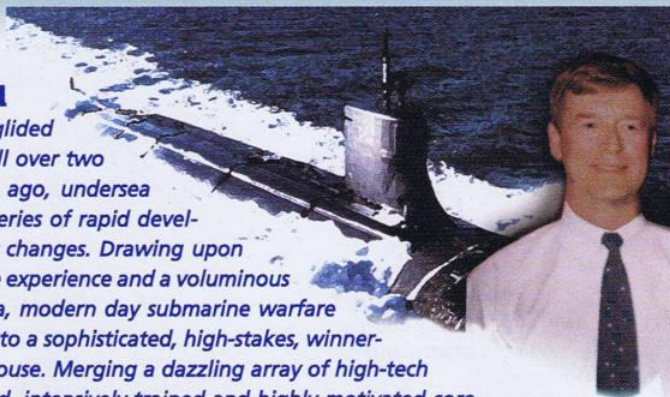
If you'd like more information on the Los Angeles class 688(I) submarine or its adversaries, CGE recommends the following sources of information:

Clancy, Tom. *Submarine*. Berkley, 1993.
Clancy, Tom. *SSN*. Berkley, 1996.
Sharpe, Richard, ed. *Jane's Fighting Ships 1995-96*, Jane's Information Group, 1995.
The Naval Submarine League Review. Quarterly periodical covering submarine fleets of the world. (703) 256-0891.

Interview with **CAPTAIN TERRY JONES,** U.S.N., (Ret.)



Ever since the first crude submarine slipped off its mooring and glided into the oceans' depths well over two hundred and twenty years ago, undersea warfare has undergone a series of rapid developments and revolutionary changes. Drawing upon a wealth of first-hand battle experience and a voluminous mountain of analytical data, modern day submarine warfare has evolved and matured into a sophisticated, high-stakes, winner-take-all game of cat-and-mouse. Merging a dazzling array of high-tech equipment with a dedicated, intensively-trained and highly motivated core of professional seamen, today's servicemen are intelligent and selfless mariners intent on preserving the naval traditions and heritage, while safeguarding the balance of power both on and under the seas.



In the case of Terry Jones, the U.S. Navy has been fortunate indeed to have taught him the craft of the proverbial "Silent Service." In his stint of nearly three decades with the Navy, Cap-

tain Jones fondly recalls that he neither witnessed nor fired a shot in anger. Serving in various capacities aboard virtually the entire spectrum of U.S. submarines, Captain Jones has retired his sea legs, trading in his naval uniform for civilian attire. Never straying far from his lifelong passion of the sea, Terry was enlisted by Sonalysts several years back to aid them in the development of new combat system equipment for the Department of Defense and U.S. Navy. Recently, he has also been pressed into service to provide invaluable technical and background assistance for Electronic Arts' upcoming 688(I) Hunter/Killer sub simulation.

What follows, then, are the transcripts of an interview graciously granted to our editor by Captain Jones.

CGE: Terry, would you mind discussing your background?

CAPTAIN JONES: Before I came to work at Sonalysts four years ago, I had 26-1/2 years in the navy; all my seetime was in submarines. I had served on five submarines in my career, commanded a Sturgeon Class Attack submarine (SSN) as well as a Trident submarine (SSBN), and was Executive Officer of a Los Angeles Class submarine.

CGE: Did you serve aboard the advanced 688(I) modeled in the game?

CAPTAIN JONES: No, actually it was the USS Groton and it was one of the first flight of 688s. Fortunately, due to our other work at Sonalysts, we're closely related to the Navy's combat systems development so we can keep up with the modernization and modifications of the new submarines.

CGE: Even by today's standards, modern day submarines still seem confining. How would you characterize life aboard a typical attack submarine?

CAPTAIN JONES: You stay so busy I guess you don't think about it. Most people that go on board and visit comment about how tight the quarters are, and I guess its one of the reasons its an all-volunteer force. If you're a little bit claustrophobic, you certainly wouldn't want to volunteer for life

on an SSN. You are always busy and you sometimes get into sort of an eighteen hour day. If you're in a one-in-three watch rotation — so you're six hours on and twelve hours off — your day begins to rotate on a eighteen hour cycle. You are in very close quarters, but with some top-notch people. The best people in the Navy, I think, are selected for the submarine program so that you have very few problems. You have no discipline problems as a CO or an XO, and it's rare to have a problem with somebody on the crew. The most fun is being at sea on a mission and feeling like you have a challenge and you're actually accomplishing something.

CGE: Could you outline the typical day of a submariner?

CAPTAIN JONES: A typical day at sea is broken into six hour segments with a meal separating each segment; breakfast, lunch, dinner and what we call "mid-rats" at midnight, so that no matter when you're coming on watch or going off watch there's food to eat if you're hungry. Typically, between the meals you will have probably two hours a day of formalized training of some sort; either your division training, department training or all-hands training. Frequently, you will run casualty drills, where you simulate, as realistically as you can, fire or flooding, or some electrical problem or some loss of propulsion; something that causes the crew to have to take

special measures to limit damage. Whenever you initiate one of these simulated casualty conditions, everything that they [the crew] would be expected to normally do — they break out all the equipment, they take all the actions; there's very few things we actually stop short of doing other than spraying water from a fire hose on electrical equipment or discharging the CO₂ fire extinguishers — but to the maximum extent possible you do all the procedures. Those drills are then critiqued and we use that performance information on the crew as feedback to devise future training.

CGE: How long does a submarine normally stay at sea?

CAPTAIN JONES: Well, I guess that depends on the type of submarine you're on. If you're on a SSBN, or a missile submarine, there's a more predictable cycle, where you spend about a month in refit or upkeep and at least two months at sea; and then the cycle repeats. Those ships are "two-crewed" submarines so that both crews work during the maintenance period, and then one crew takes it to sea while the other crew has some time off and does training. With the attack submarines, or the SSNs, its anywhere from five days, Monday through Friday underway, to six months or longer.

Now if you deploy for six months or more, you're not submerged for the

whole time. In a six-month period you would probably have a four-week maintenance period and maybe a two-week maintenance period and possibly some port visits for liberty as well. But it's not uncommon to be submerged for two months or more continuously, only occasionally coming up to periscope depth and seeing daylight.

CGE: *In Tom Clancy's book entitled SSN, he periodically discusses how a 688 boat must rendezvous with a submarine tender for resupply, even during combat conditions. Would you say then that underway replenishment is the most dangerous activity on a submarine?*

CAPTAIN JONES: Well, you don't do underway replenishment on a submarine. A submarine is completely self-sufficient from the time it leaves port till when it re-enters port. It has no logistics tail; it can operate completely independently. The only thing that limits its operations would be the amount of food you can carry.

CGE: *Could you tell us more about that process?*

CAPTAIN JONES: When you load provisions — of course, a lot of the food is canned or dried so it doesn't require refrigeration — you have both a large, walk-in freezer and a chill box. You load those out as fully as you can, but typically fresh produce is the first thing to run out. You carry enough fresh milk for a week or so; after that you use powdered milk. Lettuce doesn't last too long — if it isn't eaten, it wilts — but other things will last, like apples and oranges and things like that. A submarine can load out for about ninety days worth of food in its designed storage spaces. If you have to load out for a longer period of time than that you may actually walk on cases of cans, which makes the overheads even closer to your head. On a long deployment [the crew] tries to work on those canned foods first and get them out of the way.

GE: *How many men crew a submarine?*

CAPTAIN JONES: An attack submarine these days probably has a crew of as many as 135 men assigned, but you have a little bit of flexibility there so that you can leave some people behind for leave or school or something like that. The missile submarines each have two crews of

something on the order of 150-160 officers and crew.

CGE: *Since a submarine is confining and must also remain stealthy for long periods of time, I would imagine that they're rather limited in terms of recreation. What do you rely on for entertainment?*

CAPTAIN JONES: Traditionally it has been movies. Movies have been replaced by videos for a lot of reasons; storage space and the viability of VCRs as opposed to old 16mm films that we had. Watching videos, playing games and reading, those are the typical recreational activities.

CGE: *Submarine, Clancy's nonfiction work, examines life aboard a nuclear-powered submarine. At several junctures, he discusses the unenviable berthing situation known as "hot-bunking." Essentially, newer SSNs are unable to provide sleeping accommodations for every sailor on board, resulting in many of the new recruits having to share their bunks, on a rotational basis, with a fellow sailor. This curious arrangement literally leaves one sailor having to surrender a warm bed to the next sailor, hence the term "hot-bunking." I imagine this arrangement must be tough on the seamen?*

CAPTAIN JONES: Operational commanders try to prevent that. In fact, the direction is that when you leave for deployment you will not have hot-bunking. Everybody's going to have their own bunk for a deployment. Occasionally for a short operation like a five-day operation where you may be taking extra riders or extra people for training, some of the junior people will have a hot-bunking arrangement. You always try to minimize it because it isn't good for morale and it's hard on the crew. You never would want to put people in that kind of situation for long periods of time.

CGE: *How would you compare life aboard an SSN vs. an SSBN?*

CAPTAIN JONES: There's no doubt about the fact that there's more people space on a Trident submarine [SSBN]. The size of the hull was deter-

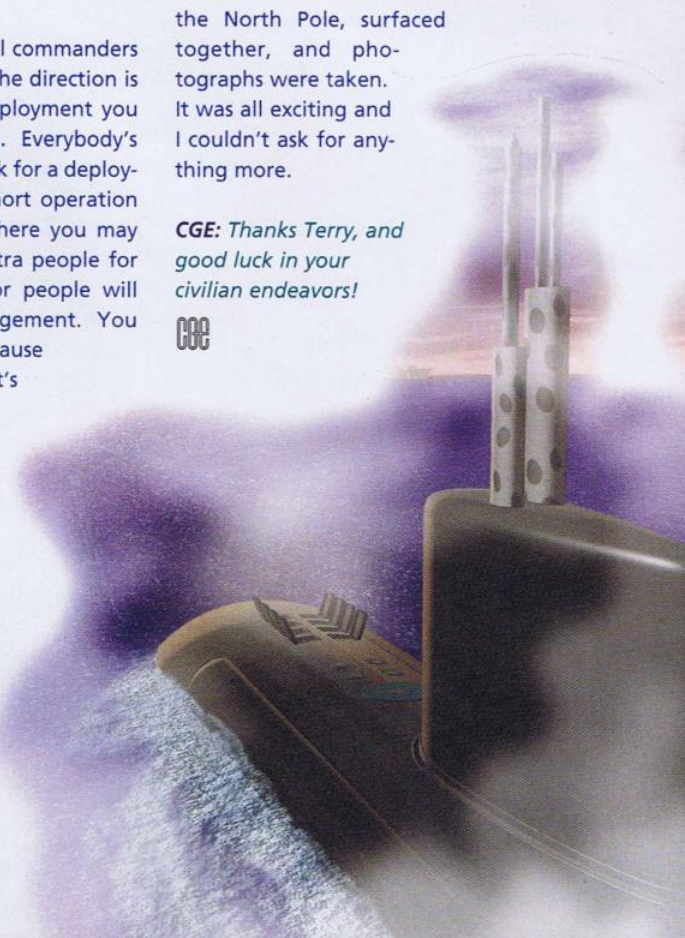
mined by the size of the missile tubes, and the amount of buoyancy you needed to have, and all those kinds of things that went into the design of the hull. You wound up with a large ship with ample people space. The quality of life, I guess you would say, is better. There are many sailors, though, that wouldn't trade because of the difference in the type of operations. Many of the SSN sailors would say that life at sea on an SSBN was boring and they would rather go to sea in a smaller submarine and do more exciting things

CGE: *Looking back, how would you sum up your career in the Silent Service?*

CAPTAIN JONES: If I had, at the beginning of my command tour, been able to lay out what I was going to do, I couldn't have done a better job than the way it turned out. I got to deploy to the Mediterranean, the North Atlantic; I got to be the mother submarine for a DSRV (Deep-Submergence Rescue Vehicle), I got to do SEAL operations, I went to the North Pole — when I went to the North Pole I had seventy-seven days under pack ice which, at the time, was the most days under pack ice — I did a multi-ship rendezvous at the North Pole with both a British SSN and another US SSN. The three of us met at the North Pole, surfaced together, and photographs were taken. It was all exciting and I couldn't ask for anything more.

CGE: *Thanks Terry, and good luck in your civilian endeavors!*

CGE



More levels than a Tokyo skyscraper



Tanks, bulldozers, boats, forklifts: Drive to kill



Hand to hand combat mode: Kick butt karate-style



WHO WANTS SOME WANG?

Shadow Warrior is here. Lo Wang.

#1 Assassin. #1 Yakuza abuser.

#1 Freak fragger. #1 Mutant mutilator.

#1 reason to be scared of the dark.

#1 Son-of-a-Bitch. So say Sayonara to

all the Ninja wannabes that have gone

before and put on your combat sandals...

Lo Wang is coming to the Land of the

Rising Sun to turn out the

lights. Shadow Warrior.

The Zen is going to hit the fan.

*"There's no doubt that Shadow Warrior
cremates the competition."*

GameSlic Weekly



Fog, multi-colored lighting, transparent
water...total immersion.



More hi-jinks, Lo-Wang speak, and
total interaction than Duke Nukem 3D



8-Player Wangbang (deathmatch), Co-Op and Team
Play modes with all-new Handicapping option.

Throwing stars, Uzis, 4-Barrel shotguns and more



Swim, climb, drive, go anywhere, do anything!



Rotating 3D gun turrets to mow down enemies



FRESH FROM THE CREATORS
OF DUKE NUKEM 3D™

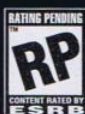


Lo Wang™ is Shadow Warrior™

GET YOURSELF A SLICE OF
THE ACTION IN STORES...NOW!
or download the shareware at
www.shadowwarrior.com



All-new Build Editor for designing
and destroying your own environments



developed by



Shadow Warrior™ © 1997 3D Realms Entertainment, Inc. Lo Wang and his likeness are trademarks of 3D Realms Entertainment, Inc. All rights reserved. Published and distributed by GT Interactive Software Corp. TEN™ and the TEN™ logo are trademarks of the T.E. Network, Inc. All other trademarks are the property of their respective companies.

IN GAMES WE TRUST

The Driving Force 'Within' Ion Storm

Nearly two decades into its heyday, the PC gaming industry is reshaping itself. Across the board, the best designers, producers and programmers are jumping ship, starting their own development houses or joining those already hot in pursuit of next-generation game design. These aren't mid-level guys with a business plan and a dream, either. We're talking "big names" here: Sid Meier, Chris Roberts, Warren Spector, to name a few.

by Brenda Garneau

In November, 1996, the biggest surprise popped out of the gaming cake.

Only two years ago, the words "id" and "competition" in the same sentence would've seemed laughable. Not now. John Romero, Mr. Mega Violence himself, the bad boy of the computer gaming industry, decided to leave the id sanctuary to strike out on his own. Termed a "free radical," he, along with veteran game designers Tom Hall and Todd Porter — industry stars in their own right — left their safe domains, embarking on an unmarked trail to take the industry by storm. Or should we say Ion Storm.

Recently, John was kind enough to sit down with Brenda Garneau, CGE's resident celebrity gossip columnist, sharing his thoughts on games, gaming at-large, and then some.

JOHN ROMERO: Actually, as soon as I left id, it [Ion Storm] was kind of informally started. The entire time, we've just been talking to various publishers all over the place about what we're going to do, that we need funding for it and how much we need and everything. It's a really huge deal, and there's only a certain number of publishers that you can actually talk to that can fork over the money. So, it's been five months of flying all over the place and having publishers fly down, just talking to everybody.

CGE: It's not at all like when you started id....

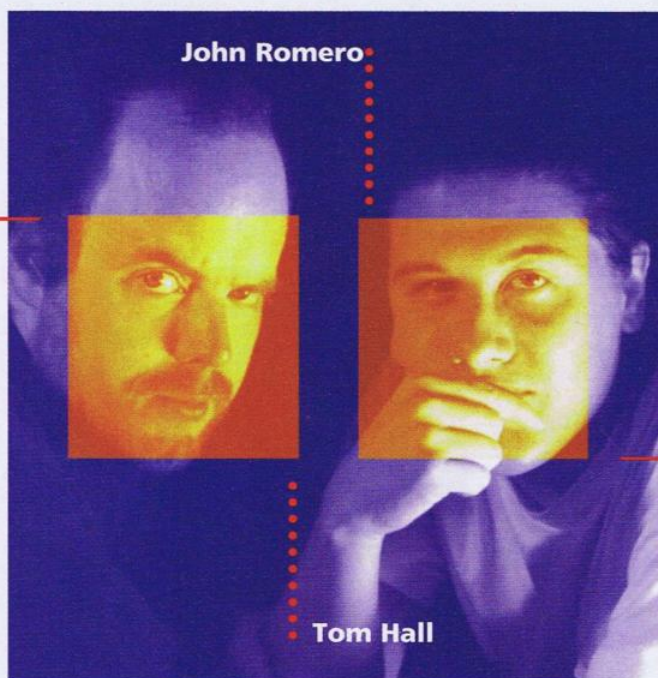
JOHN: No, no, 'cause that's totally, completely, a garage startup type deal. This is a different thing altogether.

CGE: What made you decide to leave, John? It took a lot of people by surprise.

JOHN: Creative control.

CGE: Did you feel you were losing it?

JOHN: Well, yeah. *Quake* didn't turn out... there was a lot of stuff that wasn't in *Quake* that I wanted in it. It just was too much of what we had done before, and I really wanted to do something



new, and spend more time on it, and have more resources available to create a game, you know? And not have to argue anymore about game design or anything.

CGE: So who do you have there with you now at Ion Storm?

JOHN: Right now we have probably 15 people. Basically, it comes down to this. We have three game — designers me, Tom Hall and Todd Porter. We're in charge of our own teams and our own games that we do. Then, we have administration. We have a CFO, COO and a CEO just to take care of all the business in this company. We've got lots of experienced people everywhere.

CGE: So you, Tom and Todd are all working on your own projects?

JOHN: Well, we're going to do three different types of games. If you look at the entertainment market, you see there are three genres that eat up, pretty much, all of the market share: strategy, adventure and action. We're doing titles in those three genres. I'm doing a 3D action RPG game, a first-person game. Tom is doing a 3D RPG, which is going to be more of a Japanese console-style RPG like *Chono Trigger* or *Final Fantasy III*, which has not been done on the PC yet. Then, Todd is going to do a real-time strategy adventure game.

CGE: Not single player, right?

JOHN: No, they're all multiplayer. They're not geared toward massive multi-player like *Ultima Online*. These are single-player geared games that will work in multi-player mode, but we can't

base a big company on a multiplayer-only game. That's more of a research project at this point.

CGE: There's this adage, John, that's attributed to Luciano Pavarotti. Apparently, someone asked him what it felt like to be Luciano Pavarotti, to sing like Luciano Pavarotti, and he replied that it was quite difficult because when he got on stage, people were expecting Pavarotti, some kind of greatness that was hard to live up to time and time again. Do you think that's going to happen to you? When your games are released, do you think they'll be judged on a different level, because they're expecting a game from the image of John Romero?

JOHN: Yeah, I'm sure they will, but I don't even think about it. I don't even care about it. I'm going to make the game I want to make, and that's all that matters to me. I don't care what anyone really thinks. I know they're going to have all these judgements and all this crap, but all that matters to me is that I make a really great game that I'm really proud of doing. In the past, that's what has worked. If I'm proud of doing it, if I think it turned out really okay and everything, I'm sure it will do well. That's all that matters, really. You know something funny? I was reading this interview with Shigeru Miyamoto, Nintendo's game designer. He's the God of game design. He was talking about *Mario 64*'s game design, and he was saying how, well, it was kind of a poke at id and me and everything. He was saying how people design these 3D games very selfishly, and he designed *Mario 64* selfishly, but on the user's side. Basically, he made a game that the users wanted to play instead of the game that he wanted to play. It works both ways I guess, [laughs] because *Mario*'s a great game and so are *Quake* and *Doom*.

CGE: You have a trademark mega-violence thing going on with your games. Is that something that will carry through?

JOHN: Yeah. My game's going to be an action game with a lot of RPG elements in it, though. At its core, it's going to be this action title where you're blowing away monsters and everything, but it's also going to have a really cool story with multiple characters in it. I'm hoping to get it out for Christmas of this year. I'm hoping. [Laughs] It's going to take a year to do it, hopefully less. The other two that we're doing have a year-and-a-half development on them. They might be third quarter of 1998.

CGE: Does Ion stand for anything, the science side of it?

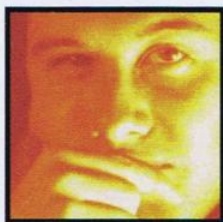
JOHN: Yeah, it's like free radicals. We're all separated off our various companies, and we're creating a new company, a new storm.

CGE: What's the coolest things that's happening in this industry and the biggest thing that blows in this industry today?

JOHN: Hmm. The coolest thing happening is the 3D cards and hopefully getting them onto the motherboards. That's really cool. The hardware is just going way up, and it's getting easier to get the technology written. You don't need a hardcore technologist to write these 3D engines now, because it's just starting to become standard. That's a really great thing because most games are going to be moving toward 3D. The Internet is also another huge cool thing, as long as the latency starts going down. Every-

body is going to start getting cable modems, and it's going to be really cool. We're going to have lots of high-bandwidth Internet play in the future. Things that suck? Things that suck are bad knockoffs of games, and there are lots of empty titles out there. People that jump into the industry that have not just *lived* in games for a long time. They really don't understand games but are trying to make them. They're basically wasting a lot of people's money by coming out with titles that are just crap. They don't really understand what makes games work.

CGE: Well, you've been in gaming 17 years now. What do you think makes a game work?



**"In Think 1996
might have
been a bad year
for Games..."**

JOHN: There's tons of stuff. The player has to be engaged in the game. You have to have lots of great feedback for everything the player does in the game. You have to have excellent control so you feel like if something happens in the game, it's *your* fault and not the game's fault because it's too hard. You have to feel like, "Well, I could have just moved backwards or to the side to get away from that," instead of other games where you actually have to *turn* to the left and *move* forward. You want to make sure that the interface pretty much goes away between you and the game, and all you're worrying about is the environment you're in. You shouldn't have to worry about pressing some key or another, the left arrow key to rotate to the left or something. That should

just be gone.

CGE: Do you have any idea why lots of people are jumping ship right now? There's you, Peter Molyneux at Bullfrog, Sid Meier from MicroProse. Is there a reason?

JOHN: Yeah, there might be. I think 1996 might have been a bad year for games or something, just for money-making potential in the industry. There were a lot of company shakeups. [Pauses] The 16-bit market, the Nintendo market, going down in this whole 32-bit shakeup. The 32-bit market is just growing, and it's an entire era going down. PCs [game publishers] get affected by that in the game market, because companies that do PC game publishing usually have a hand in publishing the consoles as well. So, the economics still affect the rest of the development on the PC side, even though it's just the console side that's going down. Another thing, the senior game designer from Blizzard that designed *Warcraft II* and *Diablo* and *Star Craft* also left and went over to Activision.

CGE: There's lots of people. In fact, I was recently talking to Warren Spector, who left Origin to go to Looking Glass, about role-playing games and the first smooth scrolling engine to hit the market....

JOHN: Warren Spector! You know, I haven't met him, but I know I'm going to meet him very soon. He's a legend in the industry, but only to the people that really know who he is. He's done a lot of really great Origin stuff.

CGE: Definitely. We were talking about their roleplaying games...

JOHN: You like RPG's? Have you played Super Nintendo RPG's?

CGE: Not yet. Not a real RPG.

JOHN: What's your favorite RPG?

CGE: My favorite RPG? It's a cross between *Ultima Underworld* for sheer awe and *Wizardry VII* for story. I was just awed at *Underworld* because I had never seen a 3D smooth scrolling engine.

JOHN: Cool. You know what's kind of interesting? *Wolfenstein* came out five days after *Ultima Underworld* was released. I think *Ultima Underworld* was released April 30, 1992, and *Wolfenstein* was released on May 5, 1992. The only reason that *Wolfenstein* exists as a texture-mapped game is because of Paul Neurath at Looking Glass. I used to keep in touch with Paul from when I was working at Softdisk. I called up Paul, and he was telling me about this cool project he was working on, that it uses this technique called "texture mapping." Texture mapping? That sounds kind of cool. Then, I told Carmack. "Hey, they're working on this game that uses texture mapping. You know what that is?" He said, "Yeah, I read about that." He looks up in the air for a few seconds and says, "I can do that." That's it man! [Laughs] It's because of Paul Neurath.

CGE: That's exactly what Warren and I were talking about! That *Underworld* was first.

JOHN: Well, he's right. I agree with him. [Laughs] I know the dates.

CGE: It seems every really good designer has a particular game, John, that got them addicted to this industry, helped them to find their proverbial calling.

JOHN: Yeah, *Pac Man*.

CGE: Really?

JOHN: Oh yeah, as soon as it first came out. It was in color.

It was different than anything else that was out. It was fun, kinda cute. It wasn't the mentality of *Space Invaders* or *Asteroids*, destroy, destruction, battle zone kind of stuff. It was a fun game, you know? It had a really different kind of attitude. I spent all my money on *Pac Man*. By that point, I had started programming already. I started getting into programming back in 1979, and I knew that I wanted to do games. The thing with *Pac Man*, that just made me even more addicted to doing games, and kept on showing me that you could do anything with games. I've just been programming and publishing games since then.

CGE: I know you've been interviewed a thousand times, John, and you've been asked every question in the book, so some friends and I were trying to come up with something original to ask you, which isn't exactly the easiest thing to do. Anyway, I have your picture here and one of my friends noted, rightly, that you didn't look like the traditional programmer geek. That you were actually pretty good-looking. So, in the spirit of originality, we *personally* (not *CGE*) decided to award you Best Looking Game Designer of 1997. How do you feel about that?

JOHN: [Laughs] Oh, man. You ought to come over here and check out Todd Porter, the other designer here. He used to dance for Le Bares. I think he's definitely better looking than I am. [Laughs] But, well, all right, thanks. [Laughs]

CGE: Is our industry similar to the movie and music industry—once you get famous and start making lots of money, you're hounded by goldiggers?

JOHN: Um, yeah. It's not from over e-mail or anything. I never get any e-mail from women saying, "Let's hook up 'cause I love games" or any of that crap. But, if I go out somewhere with my friends and there's a bunch of women there and we're talking to them, sometimes the car crap will come up. After they find out that I have a Hummer or a Testarossa or whatever, they get real interested. It's not from computer stuff or because of games. It's just money. "Oh, money!" Especially the older women.

CGE: Older women? Really?

JOHN: Oh yeah. Young women, when they get out of college or high school or whatever, they don't know what it's like in the world, how hard it might be if you don't have a lot of skill to do anything. After, when women are usually in their thirties, I definitely notice the interest level is a lot higher. [Laughs] But, I'm married, so it doesn't matter. [Laughs]

At presstime, it was determined that Eidos Interactive will be publishing all of Ion Storm's products. We wish both groups a prosperous, healthy and rewarding relationship. CGE

STORM CHASERS

"ION STORM, WITH ITS WEALTH of established talent and the best technology and equipment, represents the coming of age of the interactive entertainment industry," according to Mike Wilson, CEO of Ion Storm. Along with their ambitious mission statement, Wilson recently announced Ion Storm's long-awaited product lineup for 1997 and beyond.

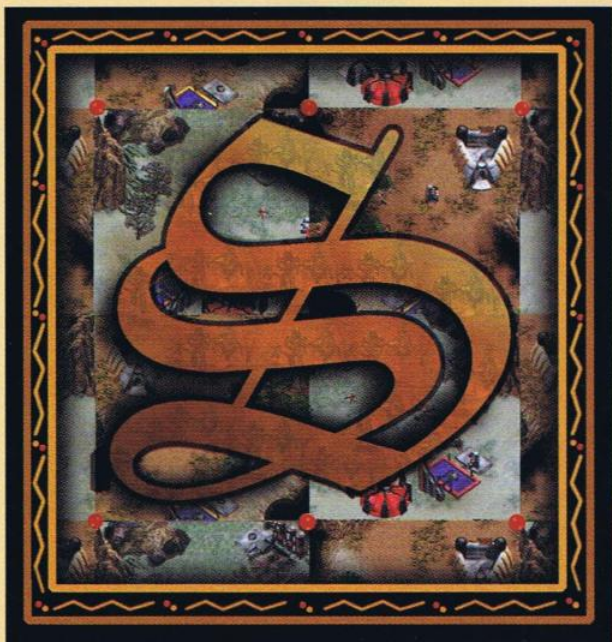
Building upon his success in the first-person, 3D gaming universe, Romero is working on *Daikatana*, an action/adventure game purportedly containing a plot. Utilizing the 3D *Quake* engine originally developed by id Software, *Daikatana* is billed as "an action-packed adventure of time travel where the player's mission is to set history straight."



The *Daikatana* is both the player's sacred samurai sword/weapon and time travel device that thrusts the gamer into the nucleus of medieval and futuristic warfare." By introducing various role-playing aspects John, according to Wilson, "will create an engaging environment that contains more variables, choices and outcomes for the player."

Tom Hall, on the other hand, is developing *Anachronox*, which he describes as a "turbulent story with a roller coaster of emotion." A fantasy roleplaying epoch, the premise put forth is that space is beginning to fold in on itself. The player then must travel through towns, planets and various dimensions, collecting weapons and technology which will help him or her solve the game's puzzles. Look for *Anachronox* to be released sometime in the third quarter of 1998.

Last, but certainly not least, Todd Porter is currently paving the way for a new 3D, real-time strategy game due for release sometime in the third quarter of 1998. *Remora*, purportedly, will merge the intensity of a 3D, first-person perspective shooter with the complexity and depth of play ordinarily found in a strategy game. Porter's project will supposedly incorporate a fresh storyline featuring a variety of plot twists and other storytelling devices to maintain and heighten both intrigue and suspense.



till Battle's Call: A PREVIEW of DARK REIGN, DOMINION & 7TH LEGION

by ROBERT
MAYER



ust a couple of
years ago, real-
time strategy

games were, if not unheard of, rather rare. There were a few like *Harpoon* that used continuous time, but strategy games generally meant turn-based play. *Civilization*, *Master of Orion*, *X-COM* — the titles that helped define the modern strategy genre — moved at the sedate pace of chess. That began to change with Blizzard Entertainment's *Warcraft*, a now-classic game that blended reasonably-detailed resource management and fantasy themes with the immediacy of an arcade game. While not the first game to dispense with discrete turns, *Warcraft* was the first game to successfully blend real-time action, strategic considerations, and professional, top-quality sound and video wrappings. Real-time games sought to retain the essence of strategy games while dispensing with their more problematic elements. To that end, *Warcraft* and its immediate successors — Westwood Studio's *Command & Conquer* and Blizzard's own sequel *Warcraft II* — emphasized fast play, continuous action, and a high degree of player involvement in the struggles taking place on screen. Units were individual soldiers, complete with their own vocal and graphic character; they responded to orders with a grunt or a word or two of acknowledgment. Command and control was a matter of deft mouse movement, and combat as simple as clicking the left mouse button. At the same time, players immersed themselves in fully-developed game worlds, with compelling fiction, attractive graphics, and even a



sense of humor. A far cry from *Star Trek* on a mainframe, indeed.

Thanks to both Blizzard and Westwood, the real-time strategy genre was well and truly established by 1995. Gamers who loved strategy and war themes, but grew impatient waiting for the computer (remember SSG's *Warlords II*, a great game with some of the slowest AI opponents anywhere?), finally had their prayers answered. Other, often younger gamers, accustomed to the hectic pace of the arcades and console games, became bored with the sometimes plodding pace of traditional games. Whatever the reason, the shift to real-time as the dominant paradigm for strategy games was wildly successful, at least for companies that got the formula right. Like all runaway hits, though, the success of real-time games spawned a crop of imitators, and 1996 quickly became the year of the clones. Some, like SSI's *War Wind*, Westwood's *Red Alert*, and the *Command & Conquer* and *Warcraft II* expansion packs were quality products, but too many of the rest were

nothing more than copycat designs. As 1997 rolls in, however, we are about to benefit from the first wave of true next-generation real-time strategy games. Building upon the successful foundation laid by others during the past eighteen months, games like Activision's *Dark Reign*, 7th Level's *Dominion*, and Epic's *7th Legion* are seeking to challenge, if not dethrone, the reigning kings of real-time strategy. While the members of this troika have a lot in common, there are enough differences between them to pose some interesting dilemmas for gamers already in the stead.

In terms of commonalities, science fiction seems to be a recurring theme for this trio, as is high-tech, futuristic combat and resource management. Though there are particular hints at a fantastical element — such as that which imbues the *Warcraft* games — in general, these games split the difference between *Command & Conquer*'s futuristic but evolutionary weapons systems and *Starcraft*'s full-bore space combat environment.

All three bear some resemblance to

Interplay's recently released *M.A.X.*. Each seems comfortable postulating the settlement, development, and warring over planets, using a similar array of equipment and battlements. The similarities, though, stop there. Whereas the Interplay offering is geared more towards the traditional strategy gamer — with the added zest of timed simultaneous moves in addition to turn-based play — the three newcomers contain even more fast and furious multiplayer action, obviously taking direct aim at the players who vicariously live and die online. Sound effects, video, and music receive the utmost attention, and hi-res SVGA graphics are the rule. All of these games pretty much require a Pentium to run; the faster the better. Network, modem, and Internet compatibility is included, employing standard Windows 95's DirectPlay connectivity routines for the best possible multiplayer mayhem.

Beyond the basics, each of these games has a very distinct flavor and personality. These traits, however, are likely to spell the difference when it comes to choosing between *Dark Reign*, *Dominion*, and *7th Legion*. *Dark Reign* is the grittiest, containing the highest level of detail, most complex combat model, and perhaps the most "militaristic" feel. *Dominion* is the high-tech champion, relying on a strong science fiction atmosphere, nifty construction variables, and a plethora of display options. The "what'cha waitin' for, ace!" award goes to *7th Legion*; Epic makes no bones about their intentions at producing a game that is faster and easier to test drive than either *Warcraft II* or *Command & Conquer*. Eschewing the traditional resource management of most games in this genre model, *7th Legion* credits each player with a prescribed level of cash at predetermined intervals, and offers bonuses for accomplishing tasks such as exterminating the enemy. No more hunting around for animals, vegetables or minerals to process; this is warfare based on an allowance system. Gameplay is similarly streamlined, sporting what is perhaps the cleanest interface of the group. All in all, these are three games which manage to cover similar subject matter using vastly different styles. While aficionados of real-time strategy games might have trouble making their prospective buy, they shouldn't worry about the lack of choices available.

DARK REIGN:

Foretelling the Future of War

Activision's entry into the real-time strategy market reflects the polish and skill

acquired through their experiences with the highly-successful and critically acclaimed *Mechwarrior* games. Of all the games surveyed here, *Dark Reign* has the closest, darkest, grittiest and most realistic-looking terrain. There are brooding trees, desolate clearings, stark cliffs — and it all looks great. Vegetation actually looks like something a botanist might recognize, and landscapes are dotted with cliffs, ravines, hills, rocks, and other features. Eye candy they're not, each having a dramatic affect on gameplay. Unlike many strategy games — where fancy terrain serves as little more than a pretty bitmap — *Dark Reign* takes a leaf from more traditional wargames, demanding that gamers take the terrain into full account when planning missions. Advancing enemy units disappear behind trees; hills and ridges block sensors; and units move much more slowly over rougher terrain.

Firefights in forests won't please Smoky the Bear one bit; lasers and cannons turn extraterrestrial oaks and pine trees into piles of interstellar sawdust. And oh, how spectacular those firefights become. While including different sound effects for each weapon is nothing new, it appears as if Activision has pulled out all the stops this go-round, even providing unique effects for each team's weapons. For instance, apart from cosmetic appearances, the Imperial Strike Marines sound quite different than, say, the Freedom Guard soldiers. Although unit capabilities between the warring factions are somewhat similar, each side is presented in such a manner as to create a distinctly separate playing experience. The detailed, well-defined units in the game run the gamut from construction equipment to recon bikes to walking. Unit creation can be queued, and as long as the money doesn't run out, production will continue unabated. Units respond to mouse clicks with especially appropriate vocal effects. The voices for the Imperial forces, for instance, sound suitably ominous, conjuring up images of Darth Vader and his legions of Imperial Stormtroopers. Freedom Guard units sound less foreboding, and the construction crews seem to exude that pragmatic, "I'm workin' here!" attitude. Department of Transportation crews seem to exhibit the world over.

Overall, *Dark Reign* visually looks and sounds promising. If everything survives the development process, the game should represent one of the best products to land on store shelves in some time. Appearances, though, are only part of the formula, and *Dark Reign* should have some

interesting gameplaying twists and radical interface approaches to warrant the attention of most gamers. One of the most interesting things Activision will be including is a fully developed waypoint system. Units or groups can be ordered to move along a series of waypoints — rather like *Red Alert's* system — but more elaborate. Orders, such as "attack" or "wait", can also be programmably assigned, so some fairly involved navigation and battle tactics can be initiated. Continuous free-flowing paths can be created, ensuring delivery of logistical resources from unrefined site to storage facilities. Intriguingly, one such resource is water, plain old H₂O. In fact, locating, extracting, and storing water will occupy much of a force commander's time in this game. Much like the cattle feuds of the American Wild West, struggles will ensue centering on the rights to various local waterin' holes. With water carriers shuttling back and forth, interdiction and protection of the water supply should provide opportunities to develop some interesting offensive and defensive tactics.

Like most of its ilk, *Dark Reign* requires players to explore in order to locate the enemy. An unexplored map may be blacked out, while a grayed out map depicts previously identified terrain features, but not necessarily the whereabouts of the enemy's forces. The enemy positions will appear only in areas under direct observation. As a result, continual scouting or even the formation of picket lines may be necessary to predict trouble.

Various defaults, such as sentry or hunter/killer orders, can be given to units detached to independent duty. A random function feature will also be included, which permits units to pretty much fend for themselves. Because *Dark Reign's* terrain affects line-of-sight acquisition and targeting, correct positioning of units becomes all the more important. Trees, hills, and other terrain can block observation and fire, giving *Dark Reign* a much more realistic, tactical combat feel than other games of its type. The combination of dense terrain and visibility should make for some lively and dramatic multiplayer ambushes, as players seek out protected and concealed positions to sneak up on their opponents. Movement, too, seems well-balanced. Personnel carriers and transports are slow, while recon saucers are suitably quick and nimble. Assault walkers convincingly stomp around; scout tanks scoot across flat, unimpeded terrain while struggling to negotiate rougher, broken terrain.

Employing solo and multiplayer modes,

UNITS

Hover Marine



Fire Support Marine



Strike Marine



Spy



Imperium Walker



Self Propelled Artillery



Tachyon Tank



Plasma Tank



Scout Tank



Assault Vehicle



Recon Saucer



Mobile Air Defense



Hover Transport



Imperial VTOL



Grounds Transport



Hostage Taker



Dark Reign:



Firefight in the trees—note how the terrain affects lines of fire



Freedom Guard base—a hive of activity

Bored with plain old lasers and machine guns? Have no fear, Dark Reign is here, with a virtual cornucopia of carnage. Some of the weapons included in Dark Reign are:

Weapon

Rail Gun
Double Rail Gun
Triple Rail Gun
Sniper Rifle
Plasma Cannon
Plasma Rifle
Tachyon Cannon
VTOL Cannon
Gatling Laser
Chemical Grenade

Unit

HW Freedom Fighter
Spider Bike
Triple Rail Hover Tank
Sniper
Plasma Tank
Tachyon Tank
VTOL flier

Units:

Imperium units are shown at left. Note that building all these units takes time; you have to build a series of structures before you can build the advanced units, and that will take a lot of resources.

a well-developed backstory (pitting the Freedom Guard of rebels against the evil Imperium), and a very fluid, tactical feel, *Dark Reign* should be a winner. While the resource management and base construction aspects of the game are fairly conventional, they seem well done. The more traditional wargame elements handily sets the game apart from many already existing real-time games. Late alphas of the game demonstrated a promising future and, given Activision's track record, a successful debut is rather likely. One question remains; will Activision's attempt to mold the real-time strategy genre into a more detailed and complex world succeed in attracting more tactically-oriented gamers, while simultaneously satisfying the current crop of action-oriented fans? The answer should come sometime this summer when the *Dark Reign* truly begins.

DOMINION:

7th Level Enters the Fray

7th Level is a company perhaps more familiarly known for its Monty Python desktop toys than for strategy games, but *Dominion* might very well change that perception. *Dominion* is part of 7th Level's shift in focus to more mainstream computer gaming. Although the realm of real-time strategy is quite a distance from Arthur's Britain, 7th Level seems likely to make the journey in one stride. In the absence of goofy video clips, "Burn the Witch" games and wacky animations, *Dominion* offers sophisticated graphics, a slick interface, and a refined approach to futuristic strategy gaming. Instead of portraying tactical combat or the intricacies and complexity of wargaming as evinced by *Dark Reign*, 7th Level has opted for a more high-tech, user-configurable game that emphasizes units and technology over terrain considerations and resource management.

The four competing factions that battle it out for planetary dominance do so with a host of weapons, structures, and supporting infrastructure that offers a slew of choices and strategic options. Conflict is played out on spacious, crisply-rendered maps which feature seemingly photo-realistic terrain and some tactically ingenious layouts. A multitude of cutscenes, related scenarios, and multiplayer options round out the mix, and a compact yet comprehensive interface ties it all together. When 7th Level puts it all in place, the results should be impressive.

Though it lacks some of the incredible map detail of *Dark Reign*, *Dominion* can be modified to accommodate any one of a number of user-selectable viewing modes.

Depending on your video card, monitor, and visual acuity, you can increase resolution to as high as 1280x1024 (presumably for those of us who use a Jumbotron for a monitor); on a 17" screen, 1024x768 mode works beautifully, with individual infantrymen easily and readily discernible. High resolutions provide more visible map area and hence less scrolling. Simply put, more visible map area permits players to more easily construct sprawling base complexes, while providing better micro-management of large battles. At all resolutions, units and structures are properly scaled, promising a satisfying visual feast no matter the visual mode chosen. Maps are crafted in various layouts and patterns using several general types of terrain, such as arctic, desert, and so on.

In keeping with its sophisticated technical wrappings, *Dominion* features the most elaborate and advanced set of units and structures of any of the games previewed here. Personnel units range from the ubiquitous grunts to highly-skilled commanders, and a form of human tank called the Personal Hunting Vehicle (PHV). Vehicles include several types of bi- and multi-pedaled walking tanks, as well as the usual array of tracked, wheeled, and hover vehicles one would expect from this sort of game. Though each side contains the same basic mix of units and buildings to create, each of the four available races — Human, Scorp, Darkens, and Mercenaries — possess their own styles of units and structures, as well as identifying color. Humans are, well, just like us, only better looking brutes. The Scorp are insectoid-like aliens, the Darkens a more savage race with plenty of firepower, and of course there's the Mercenaries (think of an unholy alliance of renegade humans and every other species in the galaxy with a grudge against the established order, and you've got the basic idea).

Unlike some games, the various units are both distinctive and easily recognizable — an aesthetically satisfying yet practical approach at ensuring variety. The Scorps, for instance, come in green and build insectoid vehicles. The Scorp multipedal carrier vehicle is an awesome looking giant scorpion, vaguely resembling an ancient trireme only much more fearsome looking. The Darkens, by contrast, seem to have a thing for spiders, as several of their units look rather arachnid-like. Moreover, the control panels for each side are graphically different, retaining the same general layout between sides, yet presenting a great deal of individuality nonetheless.

Unit animation seems superb; the

bipedal vehicles briskly trot around, the multipedal monsters lumber along like mechanical elephants, and hovertanks skid and bank as they make sharp turns. Sound effects are equally compelling; personnel units responding vocally, vehicles emitting mechanical noises, and industrious humming sounds emanate from the various factories.

The wide variety of unit types and depicted detail bodes well for actual gameplay. Commanders, engineers, and carrier vehicles seem designed for specific tasks above and beyond the normal rough-and-tumble firefight, and most, if not all units can be upgraded to higher levels of effectiveness. One already effective-looking unit is the teleport vehicle. Build a teleport pad, then a teleport truck, and voila!; instant long-distance transport system. In the relatively early alpha build viewed for this preview, teleportation worked like a charm. Simply drive the teleport vehicle to the desired terminus, unfold its landing pad, then order troops and vehicles into the telepad. As the men and machines reach the pad, they disappear ("Energize!") and reappear instantly at the transmogrified truck. Quite frankly, this aspect proved so much fun to fool around with that using teleporters in real, live multiplayer games is sure to be hugely entertaining. Of course, those mobile teleport receivers will become prime targets for marauding enemy forces....7th Level has certainly made a serious effort to make *Dominion* something much more than just another C&C clone, and brilliant touches such as the elegant teleportation system make this all the more apparent.

In *Dominion*, other nifty features abound. Instead of using tired-looking walls and sandbags, there are energy beacons which, when properly placed, can form walls of raw energy (sort of a high-tech electric fence except that this one's nearly impregnable). There are quite a variety of available structures, and base construction promises to be fairly detailed. Using the alpha code as a reference point, it wasn't clear how detailed the resource management system would ultimately become, but the presence of refineries, power stations, and an infrastructure including distribution aspects hinted at a fairly sophisticated in-game economic model. With the exception of the main base structure, factories are segmented into weapons, chassis, and power plant facilities, again hinting at a more involved production process than found in most games of this type.

As 7th Level puts the finishing touches

UNITS



Soldier Rank 1



Soldier Rank 2



Personal Hunting Vehicle



Commander



Engineer



Teleportation Vehicle



Wheeled Assault Vehicle



Treaded Assault Vehicle



Treaded Carrier Vehicle



Hovered Assault Vehicle



Hovered Carrier Vehicle



Bipedal Assault Vehicle



Bipedal Carrier Vehicle



Multipedal Assault Vehicle



Multipedal Carrier Vehicle

Dominion



Units and Structures:

The upper image exhibits excellent structural and terrain detail rendered in high resolution graphics.

The lower image shows the Mercenary force's structures. Note the presence of plants for making semi-conductors, propulsion plants, chassis, and weapons; could there be some extensive building options awaiting coding?

on *Dominion*, it seems likely that this will be one of the more eagerly awaited real-time games of 1997. If the AI, unit control, and multiplayer capabilities all work as prophesized, *Dominion* might well prove to be a dominant game to overcome. There are enough aspects to attract the more jaded gamers, and plenty of familiar elements that'll prevent the game from scaring off the faint of heart. All told, the game should be quite intriguing when all the pieces finally come together.

7TH LEGION:

We Who Are About to Destroy, Salute You!

Where *Dark Reign* and *Dominion* take fairly detailed and serious approaches to real-time strategy, Epic's *7th Legion* wanders off on its own; seeking a much more frantic pace with less accompanying baggage. The backstory, at least in this alpha version, was spartan but interesting. It seems the wealthy and powerful were able to leave a dying Earth, but for some reason have decided to return. Seven

legions, composed of those unfortunates (or their descendants) who had to tough it out while the EPA eventually fixed things up, coalesce to repel the returning forces, a.k.a. "The Chosen."

Unabashedly, *7th Legion* is an action game, bordering for moments at a time as an arcade experience. To be sure, strategy elements abound, but if *Dark Reign* can be analogized as classic rock, and *Dominion* alternative, then *7th Legion* is, without a doubt, speed metal. Everything happens fast; movement, combat, construction. Even the graphics capture the essence of reckless speed, using animations of running men, prancing dinosaurs, and rumbling mobile bases. Epic is clearly setting its sights on the young and the restless with this one.

That doesn't mean that *7th Legion* is any less a game than the others mentioned. Far from it. In many ways, Epic's

real-time offering embodies the sum and substance of computer-based entertainment: easy to get into, easy to control, fast-paced, full of instant gratification, and overflowing with visual and aural accents. *7th Legion* aims to grab gamers and pull them in from the moment the CD spins up. Features such as night missions, translucent fog effects, and music that will, when fully implemented, synchronize to onscreen events should add some spice to a genre that has had its share of me-too copycats. "This isn't your father's war game," Epic states on their web site and, while slightly anachronistic for many of us (my father never saw a computer game, I'd wager), the phrase captures Epic's intent perfectly. *7th Legion* is designed to kick butt, take names, and doesn't bother to hang around to clean things up.

Gameplay isn't the only thing that appears accelerated in *7th Legion*. Epic is boasting that this game is one of the first of three MMX-capable games they will be producing. Intel's MMX processors are basically souped-up Pentiums with multimedia acceleration built right in. These CPUs, which are as we speak being retrofitted to the new systems, will allow greatly enhanced lighting, sound, animation and other effects in games. In conjunction with the proliferation of 3D accelerators, they promise to revolutionize game graphics. *7th Legion* will take advantage of this MMX technology to provide 16-bit (64,000) color and enhanced lighting effects for night and fog missions; other uses are certainly possible. While a MMX machine will not be necessary to play *7th Legion*, it sure will enhance the play experience.

And that experience should be intense. Players build their bases using their allowance of credits, fulfill mission goals to gain extra income, and are allowed to play special action cards to confound their foes (Ed: ala *Global Conquest*). These cards, which appear as icons at the top of the screen, include such wonderful effects as Armageddon, blessings, curses, and other benefits and afflictions which will influence the course of the battle. Delivering these little missives of love is as simple as clicking and dragging the appropriate card to its target. The effects can be quite astonishing: The Armageddon card, for instance, is fully capable of indiscriminately wiping out both friendly and enemy forces. The cards are randomized, so no one has an advantage. The introduction of a randomized card element means that each game is different, an important consideration in a game that features modem, six-player network and Internet capability.

Snipers will no doubt become a hit with gamers, as are Slaven Riders (dinosaurs with ornery gunslingers riding on top), various types of tanks (including a Zap Tank, whatever that may be) and a slew of bipedal mechs — which uncannily resemble the toy robots of the 1980s.

Power-ups represent another innovation that Epic has borrowed from the arcades. Yep, those little goodies, that've been around at least since *Pac-Man* began to devour quarters by the millions in the 1970s, have filtered into real-time strategy games. Actually, strategy games have always had their versions of power ups; *Civilization's* "goodie huts," *Warlords'* shrines and temples, and *Master of Orion's* various special planets are all examples of unexpected, Easter egg rewards. *7th Legion*, however, really goes the distance, melding traditional action game elements with those found in strategy games. Power-ups are literally scattered about the landscape in a seemingly random fashion, containing just about anything imaginable. The surprise element each type provides makes for a rich, fully interactive environment. How players will keep track of all of these facets while the clock is running might be problematic, but we expect energetic warriors to figure out a way.

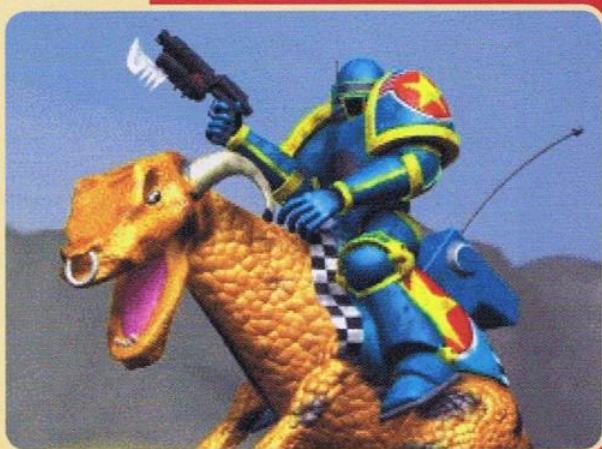
Keeping track of the health and vitality of units should be easy in any event, as Epic has provided effective and attractive visual cues. Instead of the now-standard horizontal health bar most games employ, *7th Legion* affixes little spheres or pie charts just above each unit. Players can discern the rank of each unit, as well as any spells which might be in effect. While the game takes some serious computer hardware to run effectively, at least that hardware will be put to good use, it seems.

THREE AMIGOS?

Three games, three companies, three different approaches to real-time strategy gaming. If all the promises are indeed kept, 1997 looks to be a banner year for its aficionados. Of course, Blizzard and Westwood, the superpowers of the field, aren't planning to be sitting on their laurels either. The backhand slam both are likely to take will only further re-populate, and hopefully redefine, this soon-to-be-crowded, but never quite saturated market. 

7th Legion

UNITS



Yee-hah! A Slaven Rider gallops into battle.



Graphics, as shown here, capture the essence of reckless speed.

Artillery



Light Tank



Medium Tank



Heavy Tank



Storm Tank



Robot Solider



Assault Robot Solider



Missile Solider



Robot Commander



Commander



Slaven



Cards: Some of the more interesting special cards available in *7th Legion* are shown below. Just click and drag these onto their targets, and watch the fireworks! These generally affect only one enemy unit, or a group of friendly units. Units under the influence of a card have small lightning bolts by their icons.

YOUR OFFICIAL SOURCE FOR THE NEXT STAR WARS TRILOGY:



EXCLUSIVE SUBSCRIBER FEATURES:

Past issues have been polybagged with *STAR WARS* collectibles like:

**TOPPS WIDEVISION
TRADING CARDS**

**SPECTACULAR
FOLD-OUT POSTERS**

**TOPPS FINEST
CHROMIUM CARDS**

**LIMITED-EDITION
COMICS**

Many more of these fabulous collector's items are being planned for future issues.

SPECIAL NOTE: This super value Deluxe Collector's Edition is not available on any newsstands — it's only offered to subscribers and through comic shops.

#8

THE OFFICIAL LUCASFILM
**STAR
WARS
GALAXY
MAGAZINE**

**SUBSCRIBE
TODAY AND SAVE
OVER 10% OFF THE
REGULAR PRICE.**

In addition to the latest movie news, each full-color, quarterly issue is jam-packed with the coolest stuff about *STAR WARS*:

- Go behind-the-scenes in the creation of exciting new *STAR WARS* products
- Interviews and portfolios from today's hottest *STAR WARS* artists
- Read excerpts of new *STAR WARS* fiction — before it hits the bookstores
- Original comics stories created exclusively by Dark Horse Comics
- Surf the internet with online experts and get strategy tips from video and CD-ROM game designers
- Enter contests and play trivia quizzes to win fantastic prizes & so much more!

CLIP OR COPY

☒ **Yes!** *STAR WARS GALAXY MAGAZINE* IS JUST WHAT I'VE BEEN WAITING FOR!

As a oneyear subscriber, I will receive 4 quarterly issues of the Deluxe Collector's edition version. My check or money order payable to *STAR WARS GALAXY MAGAZINE* in the amount of \$17.50* is enclosed. Please do not send cash. (See below for ordering by credit card.) PRINT CLEARLY.

NAME _____ DATE OF BIRTH _____

ADDRESS _____ APT. # _____

CITY _____ STATE _____ ZIP _____

Charge my credit card. ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover

CARD NO. _____ EXP. DATE _____

(Month/Year)

SIGNATURE X _____

(Required for all charge orders)

SEND TO: *STAR WARS GALAXY MAGAZINE*
Subscription Dept. AAI-97, P.O. Box 555, Mt. Morris, IL 61054

*Canadian subscriptions \$22 plus 7% GST, foreign \$30 - in U.S. funds only.
Allow 4-8 weeks for delivery of first issue.

MONEY BACK GUARANTEE

CGE-01



The COMPUTER GAME ENTERTAINMENT AWARDS

1996

As 1997 rapidly eclipses '96 as the heir apparent of new game rollouts, we at *Computer Game Entertainment* thought it only fitting to reflect on the past calendar year, reviewing the comings and goings on the cluttered game shelves and everything wedged in between. Titles, of course, were many, and we thought it prudent to take time out, catch our breath, and summarily recognize the best products — amidst the deluge of new and improved software — for each of the major computer gaming categories.

Maybe it was fate, luck, destiny, kismet — or anything else we care to call it — but the fact remains that our retrospective analysis neatly dovetailed with the scheduling of our premiere issue. A portent of things to come? Perhaps. In any event, what finer way then to

introduce the magazine to its esteemed readership and the gaming community-at-large than by formally nodding our approval, calling up to the CGE podium — with an accompanying chorus of accolades and rousing applause — the best of the best, as we honor the top games released during 1996.

We should preface this overdue testimonial by stating that, like our unique reviewing process, the editorial staff has invited our well-versed contributing editors to pass judgment on the games in their respective areas of expertise. Thinking long and hard about their dubious

task — deliberating over the merits and shortcomings of hundreds of prospective, equally worthy candidates — each writer has kindly submitted their entries and, like us, now await the switching on of the spotlights, the testing of the microphone,

the handfuls of confetti and the actual opening of the proverbial envelopes. So without further ado, here now the winners and honorary runners-up for each of their respective categories.



DIABLO

BEST ROLE-PLAYING GAME

Looking back, there were really only two serious contenders for the best computer role-playing game: Bethesda Soft-

work's *The Elder Scrolls: Daggerfall* and Blizzard Entertainment's *Diablo*. Both are outstanding. *Wizardry Gold* — Sirtech's upgrade of D.W. Bradley's award-winning *Crusaders of the Lost Savant*, and *Albion* — BlueByte's off-beat sci-fi thriller about technology vs. ecology — were the runners-up in this category. *Wizardry* came along just in time to slake the thirst of CRPG fans enduring a two-year drought of product. Even dressed up in its fancy new clothes, *Wizardry* is far too similar to *Crusaders*; not really a new game as such as much as a new take.

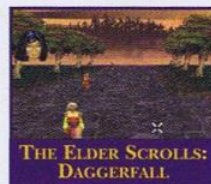
Albion was refreshing, not only because it helped fill a void, but because it carefully balanced story, puzzles, combat and exploration. It

also stirred up a bit of controversy by featuring a love story between a human and a twelve-year-old Iskai (cat-like alien) with a tail and three breasts! Still, it's not half the game *Daggerfall* is, let alone *Diablo*.

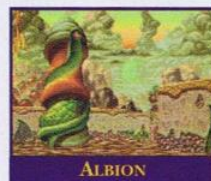
Sizing up *Daggerfall* and *Diablo*, *Daggerfall* is the more traditional of the pair, exhibiting greater depth, a more compelling story, puzzles, a detailed character generator, and can take months and months to fully explore. *Diablo*, on the other hand, was more of a "hack and slasher" than a complex CRPG and, when all is said, is a tad better than *Daggerfall*. *Daggerfall* doesn't sport *Diablo*'s enhanced SVGA graphics, superior sound track, random level generation system — although it does manufacture dungeons at random — nor any of its multiplayer options.

And of course, multiplayer gaming is where *Diablo* really shines, providing an unparalleled level of capabilities, direct-connect and network-based access. *Daggerfall* may be a masterpiece, destined to be a classic, but is also a flawed masterpiece. It took far too many patches to make it playable, and it's still partially buggy! *Diablo*, conversely, is almost bug-free. Moreover, *Daggerfall* bravely attempts to be all things to all people and fails on most counts. *Diablo*, interestingly, attempts to achieve far less but succeeds at virtually everything it addresses. It also appears as if *Di-*

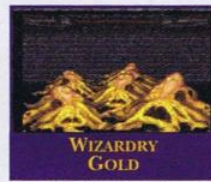
ablo, almost single-handedly, has rescued the CRPG genre from the 3D action fiends. Because of its success (over a million copies of the game have been sold within one month of the game's release), it seems destined to be cloned like other watershed releases before it. Blizzard has once again held open the shining gates of success, and for that reason alone deserves the nod for the Best CRPG of 1996!



THE ELDER SCROLLS: DAGGERFALL



ALBION



WIZARDRY GOLD



THE PANDORA DIRECTIVE

BEST ADVENTURE GAME

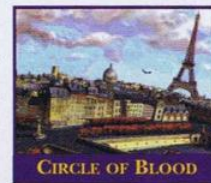
Three adventure games released last year deserved special consideration for Adventure Game of the

Year. *Circle of Blood* — Virgin's humorous, treasure-seeking animated adventure; *Spycraft* — Activision's eye-opening exposé of true espionage; and *Zork Nemesis* — Activision's puzzle-based adventure featuring gorgeous graphics, too many puzzles, and bereft of a detailed story. As a footnote, the incredibly well-received *Tomb Raider* is a hybrid of sorts, part adventure but inherently steeped in action-oriented aspects. It did not qualify for consideration as the year's best adventure game.

Far and away, *The Pandora Directive* was the most outstanding adventure game released since *Gabriel Knight 2: The Beast Within*. Based upon

the latest exploits of Tex Murphy, that cynical gumshoe sans equal, *Pandora* utilized the same engine gloriously developed for *Under a Killing Moon*.

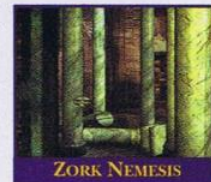
Although *Killing Moon* was a qualified success, Chris Jones — the game's producer, writer and director — also took the lead, starring as none other than Tex Murphy. Unfortunately, Chris spread himself too thin on the project, and the production suffered from over-indulgence and lack of experience. Chris evidently learned from his experience, assuming the role of Tex Murphy and nothing more. Not only is *Pandora* far superior to *Killing Moon*, but Tex now has a quirky personality of his own, no longer content to parody Humphrey Bogart. In the sequel, Tex is tougher, more charming, and less accident-prone than his former showing (in one unbelievable sequence in *Killing Moon*, Chris draws a gun and manages to let it slip out of his hands and fall out a window). Congrats, *Pandora*, and to Chris, well, bravissimo!



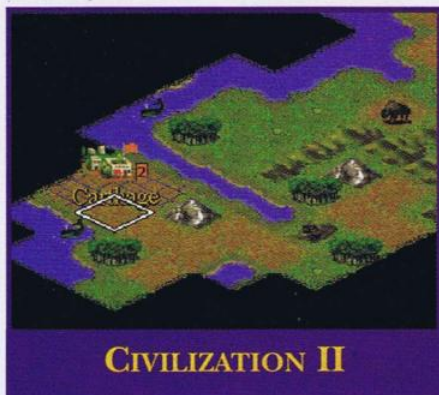
CIRCLE OF BLOOD



SPYCRAFT



ZORK NEMESIS



CIVILIZATION II

Microprose's earlier effort, *Civilization II* added all the things gamers wanted, improved those aspects already in place, and then — thanks to Brian Reynold's Herculean efforts — improved the game with the release of several important patches. *Civilization II* is the epitome of the so-called "God-game," where players determine the destiny of entire civilizations and peoples. It contains — in abundance — combat, economics, diplomacy, technology, discovery, and micro-management aspects, keenly balanced with one another to provide the best possible play experience. In short, it is as close to the perfect strategy game as we are likely to get. Where else can you build the Pyramids, defeat the Mongol horde, and put a colony on Alpha Centauri, without ever once setting foot outside of your house?



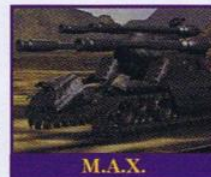
BEST STRATEGY GAME

Runners-up in this category would have to include *Jagged Alliance: Deadly Games*, an excellent expansion pack to the Jagged Alliance tactical engine, and Interplay's *M.A.X.*, a fantastic science fiction exploration and conquest game that demonstrated anew how completely satisfying a turn-based strategy game could be in a decided shift towards real-time strategy gaming. New World Computing's *Heroes of Might & Magic II* also deserves notice, for its slick way of re-packaging and enhancing an enjoyable and versatile strategy game engine. While not a blockbuster, *Heroes of Might & Magic II* provided hours of fun for a reasonable cost, utilizing a certain panache and style that has come to characterize this series of games.

Civilization II is one of those rare games demonstrating that, on occasion, a sequel can surpass the prequel. Building on the legendary legacy of



HEROES OF MIGHT & MAGIC II



M.A.X.



JAGGED ALLIANCE: DEADLY GAMES



TIGERS ON THE PROWL 2

releasing interesting titles such as *Rostov* and *Izium*.

Forced to make a decision, I would have to give the nod to HPS's *Tigers on the Prowl 2* as the best pure wargame of the year. Yes, its graphics are spartan, and yes, the learning curve would make Marshal Zhukov beg to be inducted into the gulags, but let's face it: If you want realistic tactical WWII combat on the Russian Front, you won't find it anywhere else. Though sometimes the pace is glacial, and on occasion the game seems more work than play, *Tigers 2* is so good at what it does that I can't really see any other choice for best wargame.

Close Combat would win an award for most innovative, and *Antietam* for best looking, but HPS's creation wins the all-round crown based on its devotion to realism, accuracy, and detail.

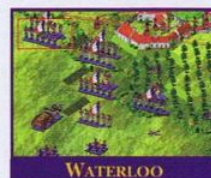
BEST WAR GAME

This happens to be a tough category to judge. Nothing really dominated the heap, but several games certainly made impressive showings. Microsoft published Atomic's *Close Combat*, the first wargame to combine real-time action with a serious, historical approach to simulating combat. Talonsoft published several top-notch games, including *Battleground: Waterloo*, their first Napoleonic treatment, and *Battleground: Antietam*, the best iteration yet of Talonsoft's successful Civil War game system. Arsenal's excellent *TacOps* made it out for Windows, allowing the wider PC-based community a chance to play the hitherto Macintosh-only, modern tactical game.

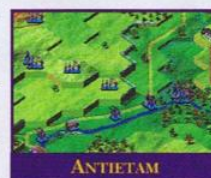
Noticeably excluded were the operational scale, traditional wargames such as the once perennial *V for Victory/World at War* entries. Fortunately, smaller publishers like Schwerpunkt are stoking the fires,



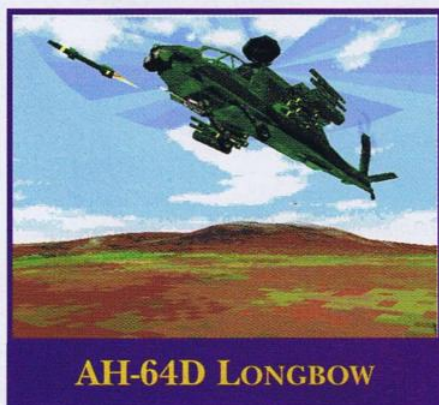
CLOSE COMBAT



WATERLOO



ANTIETAM

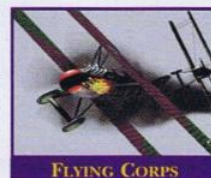


AH-64D LONGBOW

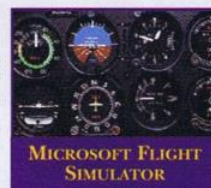
BEST SIMULATION GAME

In some ways, 1996 was a rather mediocre year for simulations, punctuated by a few outstanding releases. First and foremost, we just have to give the 3rd runner up slot to Microsoft's *Flight Simulator for Windows 95*. While a hedging call, the series, nevertheless, has been around since the dawn of PCs, aging gracefully with each new release. King of the civilian-based flight simulators, it deserves some measure of respect and recognition. The next entry would be Empire's *Flying Corps*, arguably the best World War I flight simulator in existence. Finally there is SSI's *Silent Hunter*. A hair away from winning the category, its realism, especially evinced in the *Patrol* expansion disk, makes it the one to beat as far as WWII sub simulators go.

The grand prize winner, however, goes to Origin's *AH-64D Longbow*.



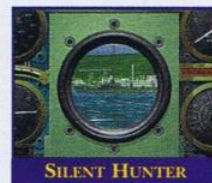
FLYING CORPS



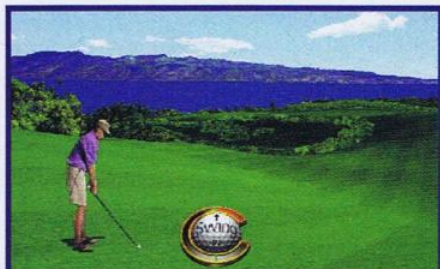
MICROSOFT FLIGHT SIMULATOR



With the *Korea* expansion disk, *Longbow* delivers unparalleled realism, "white-knuckle" flights, and just good old-fashioned fun. This is the first really serious title in the *Jane's* series and it's everything players might expect, merging a top programming and design team with Jane's reputation for accuracy and attention to detail. If you haven't picked this one up, do so right away. You won't be disappointed.



SILENT HUNTER



LINKS LS

BEST SPORTS GAME

Although 1996 will be remembered as a year in which many sports titles were released, it will also be known as "The Year Of The Sequel." Software companies might be the toddler of the entertainment industry, but they're learning fast. The cinematically-inspired adage, "If you build it, they will come" has morphed into "If you build it again, and pump up the bells and whistles, they will probably come back!"

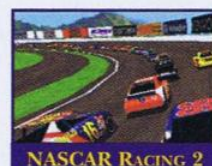
Granted, if you're a sports game developer or publisher it's hard to be a pioneer. After all, once you have a working model, what are you supposed to do for an encore? How about changing the rules of the game? Of course not. But you could improve the interface, kill annoying bugs that survive each perennial version, add tools for power users, and develop better head-to-head play modules. As we considered the

candidates for Sports Game Of The Year, we took all of that into consideration. The program, er, envelope please....

NASCAR Racing 2 and *Indy Car Racing 2*: You say "po-TAY-to" and I say "po-TAH-to"; some say "simulation" and I say they're sports titles. Nitpicking aside, two of the best racing games just became two of the best games, period. You might need to unscrew every light bulb in the house to drive these puppies at full detail, but they both kept all the magic of the original versions, and added more drivers and courses while simplifying the pre-race setups. Truly worthwhile upgrades.

Although their football and baseball titles didn't do it for me, kudos to EA Sports for keeping *NHL '97*, *FIFA '97* and *NBA Live '97* at the top of their respective heaps. If *Tony LaRussa Baseball* incorporated the widely-available shareware utilities people like Nick Keren devise I might give them the nod, but I have to stay with the patched versions of Sierra's *Front Page Sports* line for the two marquee titles. And in golf, kudos to Microsoft for a seamless Internet multiplayer feature for *Golf 3.0*, and to *PGA Tour Golf* (EA Sports) for continuing to lease space on my hard drive.

And now the winner. You might have been wondering why competitors such as *PGA Tour Golf* and *Microsoft Golf* seemed to be waltzing right by the former genre-leader, and now you know. *Links LS*'s amazing graphics and solid physics combine to give you such realism that you'll look around for overpriced drinks and dinner after playing a round. It's easy to control, responsive and a lot of fun, and what else can you ask for in a game? In any event, this is the leader others must target.



NASCAR RACING 2



FIFA '97



NHL '97



DUKE NUKEM 3D

BEST ACTION GAME

Like the original, Origin's *Crusader: No Regret* demonstrates that there's more than one way to kill a 'droid.

Breaking the mold of traditional 3-D shooters, *No Regret*

has given gamers reason to hope that the world will not be inundated in *DOOM* clones. From the story line to the wonderfully interactive levels, the *Crusader* series holds the action banner so high few games will be able to vault over it.

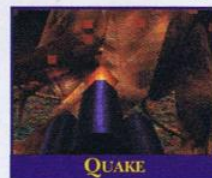
A superb technical achievement, what keeps *Quake* from taking top honors in this category are the gloomy underpinnings shrouding most of the levels. The inadequate plot fails to explain away the bizarre creatures apparently yanked from several low-budget movie sets at random.

However, the potential offered by the *Quake* engine, and the willingness of id to make the game language available to players, exudes an amazing array of creative genius by external developers. *Quake*, for all its warts, will remain on our hard drives for some time to come.

Not quite as freewheeling as the original, *Privateer 2* is still a fluid, immersive and enjoyable game experience. Capturing the far-flung essence of the *Wing Commander* universe, Origin has again demonstrated how interactive entertainment doesn't have to contain poorly-acted video sequences, shallow game play and overactive imaginations to make it enjoyable.

What makes *Tomb Raider* so special — besides Lara Croft's well-endowed figure — is its heroine's extraordinary athletic abilities, and the remarkably smooth yet fast process developed to animate them. She dives, climbs, swims, jumps, slips, grabs ledges by her fingertips — everything but crawls on her belly — all with a simple combination of keystrokes. Not only that, the lady can handle a pair of magnums or an Uzi submachine gun at the same time! It's a brilliantly, produced game — one of the best of the year — and more than deserving of being a runner-up in the action category.

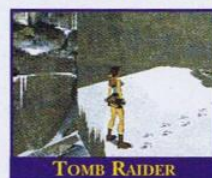
Although *Quake* fans will undoubtedly shout in derision, we tapped *Duke Nukem 3D* as the Best Action Game of the Year. While *Duke* is not quite as technically sophisticated as *Quake*, it's tons more fun. Shoot a wall and it's riddled with damage. Shoot a mirror and it breaks. Shoot a commode — well, you get the picture. *Quake* doesn't provide that same sense of purpose as *Duke*, never quite eliciting a feeling that you are actually in a believable world. Add to that the many different weapons and the wonderfully creative levels and you get a great kill-thangs experience. Way to go, slugger!



QUAKE



PRIVATEER 2



TOMB RAIDER



OREGON TRAIL

BEST EDUTAINMENT GAME

Where in the World is Carmen Sandiego 3.0 represents Broderbund's third evolutionary installment of one of the most popular edutainment titles ever created. This geographically-centered detective game has graced many a hard drive for some years now. Version 3.0 introduces a terrific scrollable 360° panoramic landscape so the player is thoroughly immersed in the game. New characters have been added as well as some new locations, along with full motion video of "The Chief" as played by Lynne Thigpen of the "Carmen Sandiego" TV show. When everything's said and done, Carmen's still right at the top of the class.

Anyone who grew up ensconced in the Muppet craze — and who also owns a multimedia PC — should leapfrog out to purchase Starwave's *The Muppet CD-ROM: Muppets Inside*. The content, interface and humor are nothing short of sensational. There's more than an hour of new audio and video footage developed exclusively for the CD-ROM, five brand new songs and dozens of classic clips from *The Muppet Show*. The cast of characters are all there — Kermit, Miss Piggy, Animal, Dr. Bunsen Honeydew, Beaker, Statler and Waldorf. Guaranteed to produce some of the widest smiles this side of the edutainment tracks.

Despite the avalanche of kid's titles released in 1996, MECC's *Oregon II* represented our clear cut winner. This updated version of *Oregon Trail* scooted miles ahead of the rest of the CD-ROM edutainment wagon train. The premise is still brilliant, spawning a number of historically-based wannabees. The task is to manage your wagon and travel plan, and arrive at your final destination alive. In addition to being engrossing, it's a mesmerizing way to learn and appreciate a great deal about one of the most important and trying epochs of American history. The updated version has great new 3D graphics, a trip diary (which can be printed out), great sound effects, and video depicting assorted animal life. It's also a great family game, although it may be beyond the comprehension level of kids under the age of seven. And this real life simulation is as challenging as any game is going to get. In a class all by itself.



CARMEN SANDIEGO



MUPPETS INSIDE

GAME OF THE YEAR

Well, it only goes to show that when you ask several gaming enthusiasts to come up with their all-time favorite product for 1996, you end up receiving several dissenting votes. Some said *AH-64D Longbow* deserved the ultimate nod, while others mentioned *Links LS* or *Nascar Racing 2*. Others claimed it was *Civilization II*, while several stated the sceptre and crown should categorically be presented to *Tomb Raider*. Ugh, decisions, decisions. Eventually, editors have to step in.

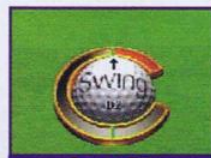
Weighing all the criteria and ballots together to make some sense out of the divergent results, we've concurred that one game truly does stand head and shoulders above the rest. By mutual consent, we've determined that

Blizzard Entertainment's *Diablo* is indeed worthy enough to wear the diamond-encrusted CGE tiara.

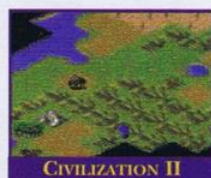
For many of us, no other game has invaded our lives quite the way *Diablo* has. Panic, fear, triumph and exhilaration are all there in superb abundance. The interface is elegant and the graphics are excellent. Moreover, gameplay, perhaps the most important and deciding element, is uncontrollably addictive. Getting to the next level, eyeing what's for sale, identifying a new amulet, and descending further into the dungeon all kept us playing the game well into the wee hours of the morning. Playing *Diablo* threatened to dissolve many a marriage, education and career. It threatened our very sanity. The exorcist is still working overtime to straighten things out.



TOMB RAIDER



LINKS LS



CIVILIZATION II

ONCE AGAIN, CONGRATULATIONS AND HEARTFELT PRAISE TO THE WINNERS AND NEAR-MISS FINALISTS. WE FULLY BELIEVE THAT EVERY GAMER WILL RAISE THEIR GLASS, SHARE IN OUR TOAST, AND TOGETHER WISH ALL THE BEST TO THE PROUD AMALGAMATION OF SELECT GAME DESIGNERS, PRODUCTION, PUBLISHERS AND SUPPORTING STAFF AS THEY BASK IN THEIR SPOTLIGHT OF GLORY. HIP, HIP, HOORAY AND BEST WISHES ON YOUR NEXT COLLABORATIONS AND FUTURE EFFORTS.

Achtung Spitfire™

... puts you in the skies in defense of Britain

September 1940: British coastal radar reports a Luftwaffe squadron of Heinkel HE111s coming from the south and heading toward London. Another group of German Junkers JU87 dive bombers is approaching from the east.



- Play against human opponents over the Internet or hot-seat. Cross platform compatibility - PC to Mac and Mac to PC.
- Computer opponent uses Avalon Hill's Over the Reich's™ "excellent AI" (Computer Gaming World)
- Dozens of single Dogfights and Combat Missions, as well as challenging Tours of Duty.
- 5-levels of game difficulty: Work your way up from Lieutenant to General.
- Individual pilots rated for personal experience and combat skills.
- Video clips of actual war footage highlight events like takeoffs and engagements.

This is just one of the battles you'll fight in the skies over Britain and France. As a British Squadron Leader, you decide which pilots to scramble and plot their course and altitude as you try to intercept German raids. As a German Squadron Leader, you plan the aircraft composition of each raid, and select its target, course and timing.

EXTRA!

Based on the award-winning Over the Reich™, rated 4 1/2 stars by Computer Gaming World ... called, "one of the best W.W.II games we've seen, period ...," Computer Games Strategy Plus



Fly out of the sun to bounce the raiders before they drop their bombs



Avalon Hill
Game Company
DIVISION OF MONARCH AVALON, INC.

4517 Harford Road, Baltimore, MD 21214
410-254-9200 • Fax: 410-254-0991
<http://www.avalonhill.com>

Available at your favorite computer game retailer or call us:
Toll Free: 800-999-3222

© 1997 A-H Games
Macintosh and Mac are registered trademarks of Apple Computer, Inc.
Windows is a trademark of Microsoft Corporation

The Purpose-Centered Creed

by Robert Mayer

A First Look at Warlords III



They come from a land down under, dwellers of the fabulous and mysterious land of Oz. No, they're not munchkins, they're Strategic Studies Group, Australia's most celebrated software house and purveyors of some of the best strategy games ever to invade the North American shores. Noted

upon the foundation of the original game, *Warlords III* seeks to pick up where the last iteration left off.

Much remains that will instantly become familiar to veterans of Illuria and Etheria's many campaigns. Heroes, armies — fantastic and mundane, quests, diplomacy, random maps and canned scenarios; all of these wondrous aspects return with the new game. SSG's excellent computer opponents make an encore appearance, as do the extensive, customizable options, help system, and rich sense of atmosphere. What should make *Warlords III* different are the ways in which it capitalizes on all of these wide-ranging qualities, improving them to elicit a much more distinctive flavor.

One of the first things players will notice about *Warlords III* is that it is a Windows 95-compatible product. After the sometimes nightmarish problems getting *Warlords II Deluxe* to work under Windows 95, a true Win95 implementation comes as welcome news indeed. Installation and setup of the new code — even for a relatively early version — was easy and painless, and the game seemed justifiably stable. Of equal importance is the support for higher screen resolutions, something *Warlords* fans have been clamoring for quite vociferously. Though not tethered to Windows' display settings, *Warlords III* will support



for their marvelous computerized opponents, elegant designs, and innovative approaches to strategy gaming, SSG's products have run the gamut; from science fiction — *Reach for the Stars*, soon to be redone for Windows 95; to WWII — *Europe Ablaze!*, the *Battlefront* and *Carriers at War* series; to the age of discovery — *Gold of the Americas*. Perhaps the best games to emerge from Australia's finest, however, have been the fabulous *Warlords* series. From the original 1989 debut of *Warlords*, through *Warlords II* and *Warlords Deluxe*, SSG has continuously updated, upgraded, improved and enhanced one of the most compelling strategy game systems around. Now, armed with Broderbund, their new distributor, and a seemingly obligatory Windows 95-compatible system, SSG stands ready to spring *Warlords III* on its eagerly awaiting public.

HOME, ALONE?

Wisely, SSG has chosen to leave the underlying game design well enough alone. Perhaps they adhere to the rather purpose-centered creed, "if it ain't broke, don't fix it!" Still, the thrust of *Warlords III* lies with improving and enhancing the original concept, although judging by what we've seen, this is shaping up to be far more than a mere formulaic redesign. Just as *Warlords II* built

640x480, 800x600, and 1024x768 resolution in 256-color mode. The higher resolution makes large game maps more accessible, and the increased pixel count makes navigation all the easier. Having the capability of running *Warlords III* in a higher resolution mode is entirely indispensable, since cities are much bigger and more detailed. Associated structures, such as stables and docks, take up a great deal of monitor space. Of course, even at the highest resolution, the unit icons become a wee bit smallish, but the stack display — located on the right side of the screen — provides a quick and effective remedy for discernment.

With larger maps, bigger viewing windows, and higher resolution, *Warlords III* also contains some invaluable art and graphical improvements. Hard to believe that the series started out as a mere 16 color product; the maps, icons, and supporting artwork in *Warlords III* serve as very impressive exemplars of 256-color graphics at their best. Having already moved well ahead of the original's rather amateurish artwork, the *Warlords* series seems set to reach its graphical apex.

Heroes and armies appear as if viewed from above, merging a slightly isometric, three-quarter perspective for added effect. And that effect is striking, akin to a high-flying bird's-eye view as it

swoops down on its hapless victim. The detailed workmanship which regales the army and hero icons are no less impressive. Sometimes quite lively, each icon is unique and, after repeated play, readily becomes distinguishable from their cohorts. In the late alpha builds used for this preview, some of the units went so far as to include accompanying animations, and almost all exhibited truly unique, movement-based sound effects. Although the heroes were at press time unanimated, they certainly appeared heroic. Gone are the effeminate-

Decisions, decisions; as in earlier Warlords games, you can raze a city for its immediate wealth, or preserve it for your lasting pleasure.



looking heroes of earlier *Warlords* games; instead, the new iteration depicts troops with swords, staves, and any other accouterment associated with a hero's trade. SSG was one of the first publishers to include an option for choosing their avatar's gender. Male and female champions have been a staple since the earliest days of *Warlords*, and with *Warlords III* the trend continues. Men are all burly, sweaty he-man types, while the women resemble those found in beer ads...hmm, sounds like Australia to me.

Aesthetically, the latest set of battlefields resemble the earlier offerings, outstripping them in appearance and complexity. While often much of the map is composed of relatively featureless grassland, the grass has a decidedly realistic countenance, broken by woods, hills, rivers and mountains. In strategy games, there's always been the need to strike a balance between overly elaborate and ornate maps — which oftentimes look great but tend to hinder conceptualization and action — and sparse maps which, although discernable, bore the average gamer to tears. *Warlords III* seems to be making idyllic strides in an effort to strike up a happy medium. Players can easily identify strategic terrain, and can plan the movements of their armies with relative ease. Moreover, the environment is attractive, sufficiently appealing to ward off ennui. In fact, although the map-based screen shots accompanying this preview are by far some of the best yet, the graphical texture of the game should be markedly more refined with each new build. If form does indeed follow function, SSG seems poised to have made a sensible decision, emphasizing the latter while downplaying any gaudy influences.

NONE BUT THE BRAVE

Heroes, armies and the map they wage war upon are only as good as the tools the player has to control the fighting. Here, *Warlords III* demonstrates some vast improvements over its predecessors. The user interface again employs a button-based system, melding flexibility with an extensively-constructed help file. When positioned over an object, a right click on the mouse brings up any and

all pertinent information. With the assistance of the button-based interface, virtually every game function is accessible. Although these buttons retain SSG's inimitable and somewhat obscure iconography, the code can quickly and easily be deciphered. Most of the actions can be invoked using nothing more than the two mouse buttons which, in theory, should make the game considerably easier to play. Much of the interface remains true to the *Warlords II* system, including the intuitive production vectoring system. New features seem altogether well integrated into the existing structure. At first, there's still that sense of information overload — some of the displays remaining a trifle arcane — but they're all sharp, functional and ergonomically accessible.

One of the most prominent displays is the Army List, a scrollable window that outlines which units are available in each scenario. In a first for the *Warlords* series, *Warlords III* will permit for the inclusion of customized army sets; up to eight players, be they human or computer. These armies can be unique or player-specific. The Dwarves, for example, might be better able to build distinctive units than the Elves, which are unavailable to the various other forest dwellers. In this fashion, SSG has ensured that — with careful scenario design — each side in the game will be diverse, requiring different and wholly-challenging playing styles to handle them. Though players still have the capability of buying and building new city-generated army types, each side can purchase units from a predefined list. With no way to imitate their foes, players must forge a methodology and strategem which best employs these widely-diverging assets which, in effect, adds personality while meeting long-term player participation goals. This feature should also prove a boon to roll-your-own scenario designers (yes, there is an editor, just as before) who like to simulate historical or literary milieus. Empowered with increased control over their armies and troop production, designers will be able to craft better game analogs of their favorite fantasy worlds.

Improvements don't stop there. Heroes have been fine-tuned

SOME OF THE NEW OR ENHANCED FEATURES OF WARLORDS III INCLUDE:

Standalone scenarios, random games, configurable maps, different terrain sets

A linked solo campaign of ten scenarios, with heroes carrying over between battles and army upgrades depending on mission success

Extensive scenario and random game customization, including difficulty, time limits, fog of war, magic, mercenaries, diplomacy, handicapping

Heroes can gain up to ten levels, different hero types (Ranger, Paladin, Sorcerer, etc.) have different abilities, heroes can use magic

Improved diplomacy features city swapping, alliances (including an "allied victory" option)

Quests available from cities, with varying degrees of difficulty and reward

Map sizes from 32x40 to 128x160

Various "random features," such as wandering merchants

Up to eight different types of sites on map



WARLORDS III allows each side in the game to have its own "Army List," a set of troops that makes up the pool of forces that side has access to. Troops not included on a side's list can't be purchased, recruited, or otherwise employed. For example, the four sides below came from a randomly generated game. Each side has Regular, Mercenary, and Allied troops, as well as a single type of boat.

KNIGHTS

REGULAR TROOPS: *Light Infantry, Catapults, Heavy Infantry, Archers, Heavy Cavalry, Knights, Knight Lords, Eagles*
MERCENARIES: *Pikemen, Light Cavalry, Dwarf Cavalry*
ALLIES: *Pegasi, Air Elementals, Archers, Dragons*
BOAT: *Great Ship*

GIANTS

REGULAR TROOPS: *Orc Mobs, Light Infantry, Orog, Ogres, Giants, Eagles*
MERCENARIES: *Heavy Infantry, Dwarf Infantry, Minotaurs*
ALLIES: *Air Elementals, Fire Elementals, Fire Demons, Dragons*
BOAT: *Warship*

DWARVES

REGULAR TROOPS: *Dwarven Crossbows, Light Infantry, Catapults, Dwarven Infantry, Heavy Infantry, Siege Engines, Griffons*
MERCENARIES: *Scouts, Barbarians, Giants*
ALLIES: *Dust Wyrms, Cave Wyrms, Fire Elementals, Dragons*
BOAT: *Barge*

ORCS

REGULAR TROOPS: *Orc Mobs, Wolfriders, Orog, Ogres, Wargs, Giant Spiders, Trolls*
MERCENARIES: *Giant Bats, Heavy Infantry, Giants*
ALLIES: *Cave Wyrms, Fire Elementals, Fire Demons, Dragons*

Regular troops are those forces each side can always produce, or build production facilities for. Mercenaries are only available by random event, and for a cost. Allies join without cost as well, but only when heroes successfully search ruins and other sites of power, and then only sometimes. Thus, from the list above, the Knights player would never be able to have Giants in his or her army even if the Knights captured a Giant city; the only troops the Knights could build there would be Knight regular troops. On the other hand, Air Elementals might join either the Knights or the Giants, but never the Dwarves or the Orcs. The Orcs, however, might well field Giant mercenaries in their armies, identical to the regular Giant troops. Such complex relationships and exclusions should ensure that each game of *Warlords III* is unique, and should also provide scenario designers a lot to work with.

forward heroes from one battle to the next — the ability to customize the leadership assumes even greater importance, filling gamers with a sense of concern and involvement regarding the trials and tribulations of their subjects.

Heroes also benefit from enhanced magical powers in *Warlords III*. Instead of simply relying upon magical items — which of course still exist in abundance — the lords and ladies ruling Eteria can call on mystical powers, casting spells to aid their erstwhile endeavors. Mana, in different forms, is necessary for spell casting. Players will therefore have to discover the spells by exploration and chance encounters with sages before heroes or heroines will be able to manipulate the forces of magic.

Each side in a scenario generates a predetermined measure of mana per turn, with more found in various ruins and sacred sites. The hero display screen allows for easy manipulation of spells, though it wasn't entirely clear while preparing this article which spells might be included. SSG promises to unveil thirty spells — black, white and gray mana corresponding to magical disciplines — and free beer, though the last might not make it through the beta testing stage. What clearly will be included, though, are heroes and heroines far more fully fleshed out than in any previous *Warlords* iteration.

A wealth of other features promise even greater aspects on the horizon: quests that vary from city to city, each with selectable difficulty levels; full-motion video cutscenes; an improved AI — which should handle computer-controlled factions much more efficiently; better diplomacy — including alliances and more sophisticated war/peace determination; and enhanced multiplayer support. This last point is particularly intriguing. According to SSG and Broderbund, the game will support eight players — human or computer — in hot seat, network, Internet, modem and e-mail configurations. A key component of the network and Internet-based options is the new simultaneous movement system, which will permit players to react within a turn sequence. If, for example, an enemy was closing in on a vital city, a player could move a stack to counter the attack, even as the enemy continues to move. Exactly how this system will be handled remains to be seen, but it seems to be part of a welcome, long overdue trend in adapting turn-based systems to real-time multiplayer environments. Interplay's *M.A.X.* used a similar system, and we can only hope that other developers will also begin to depart from the "either/or" mentality which has placed real-time and turn-based gamers at loggerheads for so long.

THE BOYS OF SUMMER

How well everything hangs together when the game does indeed hit the shelves is anyone's guess, but from the fairly advanced alpha we previewed here, things are shaping up nicely. Game play was polished, the interface was intuitive and the sense of challenge and adventure that *Warlords* games have always provided was certainly apparent. A few rough spots remained, but these, we expect, will be addressed in due time. Our only concern was whether or not gamers have overdosed on the basic game formula; after all, once you get beyond the glitz and glamour of this latest version, the game is still *Warlords*, a PC staple of sorts for nearly eight years. In all likelihood, that shouldn't pose much of a problem. There is something inherently entertaining about this type of strategy fare, and SSG has, from its inception, always maintained a leading position as one of the craftiest development houses around. Look for *Warlords III* this summer; in the meantime, start preparing. The boys from down under are revealing a magnificent new set of worlds to conquer, and this time, they're looking to you for leadership. 

as well. While these hearty men and women have always been a core component to the game — their stack-enhancing attributes and powerful allies playing a critical role — in *Warlords III* they truly come into their own. A hero can advance ten levels — from neophyte to nemesis — and at each ascending level, new purchasable abilities and bonuses are available. Players can even customize their heroes and heroines. Although *Warlords II* provided fixed bonuses with every incremental advance, the newest version permits players to choose whether to make Sir Steven a slow, powerful brute or a swift, dashing cavalryman. Since the campaign game now includes linkable scenarios — which can essentially carry

Let Slip the Dogs of War

by Marc Dultz

A First Look at W.A.R., Inc.



Much to the chagrin of many a peace activist and able-bodied inductee, warfare has long been considered good for business. In fact, in times of crisis the private sector — particularly defense-related contractors — thrive, especially during protracted military confrontations. With every shot fired in anger, supply and demand soars; assembly lines churn, warehouses buzz, rolling stock, well, rolls, and employment skyrockets. Whether it be democracies, republics, monarchies — or any other form of government you care to swear allegiance to — their once-brimming arsenals require rapid replenishment to replace depleted stocks of

pick up the slack, providing more than enough goods and “services” to offset the US vacancy.

Closing overseas bases and withdrawing troops and military units to well within its own continental borders, the US does see fit to maintain its flourishing economic empire abroad. Although external strife continues unabated, US economic ties with these war-torn nations expands exponentially. As quarterly profits reach record highs, the interests of these self-serving corporations are soon compromised, as they are regularly beset by local civil and military unrest. With no peacekeeping force to call upon and no one willing to protect them, the corporations assemble their own internal security forces, hoping to stave off the jealous locals eyeing their bottom line. Virtually overnight, these security forces meet with battlefield success, relieving most of the pressure brought to bear by the now-bloodied sects.

Their valiant efforts don’t go unnoticed, and soon local military commanders and aspiring politicians offer highly lucrative contracts to the corporations, hoping that their non-aligned security units can eradicate the worldwide militant menace, once and for all. The corporations, ever on the prowl for a quick and tidy profit, take the bait, re-organizing their forces to meet the needs of their hosts, legislators and fellow profiteers.

Stateside, elected officials have been busy ram-



Left: Typical layout of a Headquarters.

Right: An AH-64 Apache Attack Helicopter. Many of the vehicles modelled draw inspiration from actual equipment.

munitions expended in battle. Yes, warfare for some represents an extremely lucrative venture if nothing else, lining the pockets of financiers, industrialists, profiteers and, you guessed it, even the guns-for-hire, commonly known as mercenaries.

FROM THE BOARDROOM TO THE WAR ROOM

Perhaps it was just a matter of time, then, before some results-minded investors saw fit to improve their bottom line, bucking the traditional oligarchy and grabbing the reins of power for themselves. In *W.A.R., Inc.*, Interactive Magic’s upcoming real-time strategy wargame, the game postulates a plausible if archaic near-term global scenario where mercenaries are leveraged as corporate assets, roaming the globe to quell insurrection.

Twenty years after the Iron Curtain came tumbling down and world polarization collapsed like a house of cards, it appears as if the United States is no longer complacent to safeguard the world, shunning its role as the “global cop-on-the-beat.” In an attempt to forestall further second and third-world turmoil and return, somewhat, to its isolationist roots, the US government has decided to suspend further arms exports, hoping that by doing so they will dry up the world’s vast supply of munitions. A noble if ambitious goal, other weapons suppliers eventually and readily



ming through both Houses of Congress a newly-drafted law which, in effect, sanctions the creation and support of International Tactical Reaction Corporations (ITReCs). Better known as “Modern Mercenaries,” the ITReCs, financed and operated by the largest corporations, promptly commence external enforcement activities on January 1, 2011.

Nine years later the player, as Chief Executive Officer, oversees the economic, research and military activities of one of the most

prominent corporations. Melding the prowess of an astute military commander with the fiscal savvy of a Wall Street financier, it is up to you, and you alone, to quell the rebellions, reaping your just rewards in the process.

WANTED: ADMIN ASS'T. W/EXPLOSIVES BACKGROUND

First and foremost, *W.A.R., Inc.* is a real-time strategy wargame, containing all of the comfortable elements and customary aspects — such as pacing and tactical management — normally associated with other like-minded real-time strategy games. Players must also grapple with a variety of vexing and sometimes complex concerns such as production, combat and resource management. While seemingly a clone of some of the more well-received titles, the product takes the all-too-familiar concept several steps further.



Left: 3-D renderings are first created then graphically enhanced.

W.A.R., Inc. overlays a second more intriguing component, whereby players can customize their units, much like they might elect to do in an auto racing simulation. Depending upon the research dollars spent and scientists hired, players can improve several key vehicle components and unit characteristics.

In addition, a detailed entrepreneurial model is presented, containing all of the minutiae normally found within a more finance-oriented game. When all is said, then, *W.A.R., Inc.* merges the combat, pacing and resource management aspects of *Command & Conquer*, the player-controlled variables and modifiers of *IndyCar Racing* set, and the economic-based components of *Capitalism*.

If all this seems a bit perplexing and overwhelming, players can eschew the intricate underlying foundation, instead opting to play the game as they would a more mainstream real-time strategy wargame. A Quick Combat mode has been conveniently included which permits players to launch attacks and repel assaults without the bother of other long-term criteria. So much for concurrently trading stocks and mortal blows.

THE CAPITALIST MODEL

As mentioned earlier, players assume the role of an aggressive CEO, dabbling in financial dealings and technological improvements as much as they do military affairs. After game initialization, the player is whisked away — on presumably high-speed, bulletproof elevators — to their corner office with quite a “view”. The plush interior, though, belies sinister if functional high-tech furnishings, complete with suspended computer monitors, digital ticker tape displays, and other assorted corporate toys you wouldn’t ordinarily find in your favorite mail-order catalog.

Players may first find it necessary to inspect their available forces, modifying and manipulating each unit’s attributes, components and design specifications to fill mission-particular, contractual agreements and ever-widening campaign requirements. With a click of the mouse, players can customize a dazzling array of unit features including vehicle hull types, power plants, armor, shield-

ing, onboard computer-assisted controls, and weapon systems.

Research and Development aspects play a critical role in unit performance. Depending upon the number of scientists employed, players will have to spend precious investment dollars researching new technologies, thereby permitting them access to key data and other necessary improvements. Although some may question the need to spend heavily on R&D, it should be pointed out that failure to compete on the open market for the latest build components can result in other corporations having first access to newer and better technologies.

Players will also have to apportion some of their resource dollars trading stocks with other corporate bigwigs on the New American Stock Exchange (NASE). While satisfying the corporation’s shareholders is their primary concern, the player may, through prudent investment and far-sighted planning, raid rival ITRCs, seizing their corporate assets and stealing their best-guarded technologies. Over 23 companies are portrayed in the simulation, each bent on attaining world dominance through whatever military or economic pressure they can exert. As events plunge the world deeper and deeper into chaos, stock prices on the NASE rise and fall. Stock graphs monitor the overall economic climate, depicting the values of each corporation weathering the financial and military storms. It is up to the player to continually “buy low and sell high”, improving his or her economic portfolio to initiate and, if necessary, defend against corporate take-overs.

Right: Top-down view of an outpost under attack.



IF IT DOESN'T FIT, FORCE IT

Once the player is confident that he or she retains the right mix of available forces, s/he then moves on to the mission briefing segment. Depending upon the corporation’s progress to date, there may be several missions to choose from rated, difficulty-wise, by the dollar-driven bounty for successfully completing the entire mission. Care should be taken to investigate the financial worth of each potential contract, since it is entirely possible that the player can easily spend more money than he or she can conceivably take in. For instance, it makes little sense to embark on a mission worth a pitiful \$5,000,000 dollars if it requires setting up an infrastructure and accompanying military forces costing well in excess of the reward.

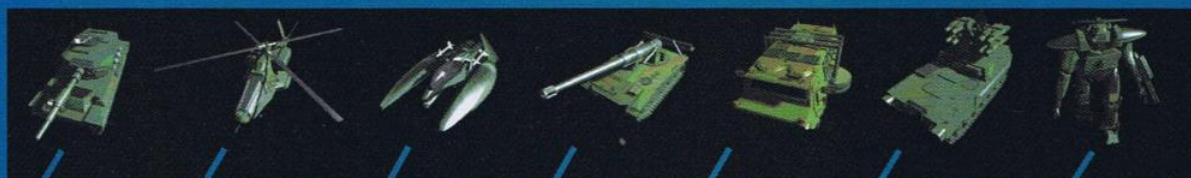
Once the player accepts a mission, s/he then ingresses to an overhead campaign map outlining where his or her base is situated in relationship to the primary, secondary and tertiary objectives. This viewing screen also contains information regarding the background parameters, tactical hints and team modification capabilities. More about the last criteria later.

The player then migrates to his or her base headquarters where s/he proceeds to erect buildings, enlist engineers, muster troops and produce other weapon systems necessary to achieve victory. Essentially, players determine which facility they plan to construct, then place the structure's outline somewhere within range of their HQ. Thereafter, the player must then create an engineer, whose job it is to single-handedly unpack the crated objects, reassembling the components into a cohesive facility. Once the base is operational, players must then begin to produce ground, vehicular and aircraft units, carefully weighing the monetary costs associated with each unit against their potential financial return. A vast array of units are available, although some of the more exotic weaponry like plasma accelerators and rail guns

tion of enemy forces are instantly revealed to the player. As units shuffle off, the underlying terrain and any structures remain visible, but enemy forces are once again cloaked unless friendly units move within range of their location.



Combat is perhaps the most interesting aspect of the game. While units in other real-time games typically possess an unlimited supply of ammunition, this is anything but the case in *W.A.R., Inc.* Not only do they carry a finite amount of ammunition, most units are capable of firing several different types of weapons. For instance, Armored Personnel Carriers can fire either a 12.7mm medium machine gun or unleash TOW-2 missiles, while Scout Vehicles are equipped with the same anti-personnel machine gun



Tank Attack Helicopter Hovercraft Howitzer ORE Sniffer Rocket Launcher Power Armor

aren't available for purchase until much later in the campaign.

After a sizeable contingent has been amassed, the player then returns to the campaign map where they then, divides their forces into various combat teams — Alpha, Bravo, Charlie and Delta. Each team — comprising any ratio of hetero- or homogeneous forces — can be tasked to secure a particular objective, or if the player so chooses may, in conjunction with other teams, assault already assigned objectives. As the teams move out, the player can, if they desire, advance time, speeding up or slowing down the game clock to reduce the amount of lag time incurred during forced marches.

Once the team reaches its objective, a tactical map is displayed, indicating the *en masse* location of friendly forces. Other teams, en route to their destinations, are frozen in time until each setpiece encounter has been completed. Like virtually every other real-time strategy game, *W.A.R., Inc.* uses a multi-layered system to convey the fog of war. Apart from the terrain in which the friendly forces are situated, the rest of the map remains blackened. As units pass through terrain, structures and the loca-

and a 20mm cannon for added clout. Obviously each weapon packs a different punch, easily exhausted in the heat of battle. Therefore it is incumbent that players routinely check the firing status of these units, making sure that units aren't wasting the wrong ammunition on every target of opportunity.

As battlefield losses are taken, certain units may be knocked out of action. Other units and ground troops may only become damaged or suffer injuries, requiring medevac to rear areas for recovery. Happily, combat teams can retire to the safe haven of their command headquarters for some sorely needed R&R. If facilities have been constructed, damaged units can be repaired while injured troopers can be nursed back to health. Ammunition can be replenished, and even additional combat forces can be created to augment the veteran units. Be careful, though, because enemy units can discover the whereabouts of the base, attacking it and any units at a moment's notice. To help protect the base from a surprise onslaught, certain units can throw out sandbags around their weapons, while others can go so far as to deploy mines.

For players who really want to experience fast and furious gunplay, *W.A.R., Inc.* will even ship with a fully-featured random map generator and battlefield editor, permitting players to customize any aspect of the game. Modem, multiplayer and even IPX network support will be included, although at press time it was unclear as to how many players can join a game. In the final analysis, *W.A.R., Inc.* should appeal to any type of wargame or strategy game aficionado.

DEAD RECKONING

A clean and commendable offering, amazingly *W.A.R., Inc.* represents Optik Software's first developmental venture into interactive gaming. Fortunately, Optik has teamed up with Interactive Magic, relying upon their wealth of experience and talent to help shepherd them through the daunting production and distribution process. It seems clear, then, that *W.A.R., Inc.*, postulating a conjectural corporate cataclysm, will certainly establish both companies as key players at the ever-burgeoning real-time strategy gaming table.



Ordnance contained in the game

"X" Marks the Spot

by Robert Mayer

A First Look at X-COM: Apocalypse



You would think the little bug-eyed monsters would have learned their lesson by now. First, we foiled their evil plans for terrestrial domination by tracking them back to their base on Mars (*X-COM: UFO Defense*). Then, we mopped up their aquatic assault on Earth, sacking their underwater lair and putting "paid in full" stamps on their finny ambitions (*X-COM: Terror from the Deep*). But no, these refugees from "The X-Files" just won't get the message, will they? Now they're coming back yet again for another close encounter of the plasma rifle-kind in *X-COM: Apocalypse*, bigger, badder, and meaner than ever. And this time, they're going to town.

USDA PRIME BEEF

Well, actually, they're going to *the* town, Mega-Prime, one of the last refuges of humanity on a planet that long ago qualified for the EPA's Superfund list. Though Earth managed to repel the second alien assault from beneath the waves, fat lot of good it did us; as soon as the last lobsterman flopped into the bisque, we were back to our old, ecologically unfriendly ways. Soon enough, we had sadly accomplished what the aliens dreamed to achieve: nearly driving humanity off its home sweet home. Stuck inside monster cities like Mega-Prime, life returned to some semblance of normality (as long as you didn't mind living in a big dome, that is). But even this quasi-satisfactory state of affairs was too much to hope for, it seems. Eventually, the aliens came back.

The new wave of alien tourism began harmlessly

enough, with UFOs popping out of another dimension (hey, we've cleared space and the sea; where else are they gonna come from?) for quick recon trips and a swing by the Mall for an Orange Julius. Naturally, such benign behavior didn't last long, and before long our little friends were back with a vengeance, terrorizing the inhabitants of Mega-Prime faster than you can say "Whitley Streiber." That's where you, gentle gamer, come in, as the leader of X-COM itself; I guess those recruiting posters that promised

fame, fortune, and promotion in X-COM were right. Armed with agents, vehicles, weapons, intelligence, and a bit of luck, your mission is to find out what the aliens want, and stop them from getting it.

Spectrum Holobyte, viz., Microprose, has once again tapped Mythos to deliver a dose of alien bashing. *X-COM: Apocalypse*



Right: Mega-Prime at night. But what lurks in the shadows?

Left: The overhead map view. Mega-Prime is a big city.



enough, with UFOs popping out of another dimension (hey, we've cleared space and the sea; where else are they gonna come from?) for quick recon trips and a swing by the Mall for an Orange Julius. Naturally, such benign behavior didn't last long, and before long our little friends were back with a vengeance, terrorizing the inhabitants of Mega-Prime faster than you can say "Whitley Streiber." That's where you, gentle gamer, come in, as the leader of X-COM itself; I guess those recruiting posters that promised

builds on the prequels, with the notion of providing even more options and entertainment value. The beta copy's accompanying press release describes *Apocalypse* as a "tense, investigation-style strategy game." In layperson terminology that means there is more than just combat involved here. Much like its predecessors, *Apocalypse* offers a lot for the average gamer to do. There are UFOs to follow around and analyze, alien intruders to investigate, raiding parties to counter, enemy bases to neutralize, technologies to research, funding to be secured, and locals to be placated. This iteration of the X-COM formula is more complicated, more involved, and more intricate by far than either of its predecessors, enough so that even veterans of countless previous campaigns will have to study the manual and practice a while to get a handle on the brave new world that Mythos has brought to bear.

NEW AND IMPROVED

So what's new? The first thing that gamers will notice are the graphics. While the game retains much of the look we've come to expect — bright colors, somewhat cartoon-like renderings, lots of detail in landscapes and structures — it's a lot clearer to see, since this iteration is rendered in SVGA. The higher (640x480) resolution permits more on-screen real estate to be viewable, which comes in handy because Mega-Prime, the playing field, is rather large.

Instead of traveling the globe, your interceptors will ply the not-so-friendly skies of the city, zooming above and among the

buildings chasing flying saucers that run red lights and whatnot. Despite the seeming smallness of the game environment, there is no feeling of being restrained; the city is big, and there are lots of nooks and crannies to search. Oh, and the city looks great. Rather *Sim City*-ish in appearance, the city map is regaled in two flavors, isometric and top-down. The isometric 3D view is dazzling, and is especially impressive at night (the power company must love this joint!), while the top-down grid is useful for getting your bearings and mission planning.

The isometric view is probably where you'll spend most of your alien-bashing time. Not only can you watch your own X-COM vehicles cruising for parking spots, but you also get to observe the locals go about their business. Agents, UFOs, and X-COM vehicles show up clearly. Watching your interceptors zoom in and out of the concrete canyons is quite a sight, too; reminds you a bit of *Blue Thunder* or *Blade Runner*.

The buildings, though, are planted on the landscape for a purpose and are not there simply acting as obstacles to navigation. Each is a location, and each location can be the site of an alien encounter. Your agents will have to investigate or raid these structures, but there's a catch: the locals don't take kindly to wanton destruction of their dwellings and places of business. When your interceptors are chasing a UFO, you have to ask yourself that Clint Eastwood adage, "Do I feel lucky?". Because if you aren't careful, an errant missile or cannon blast could rearrange the masonry on enough public property to earn you a nasty reception from the Chamber of Commerce. The same rings true for ground missions. Toss a few too many grenades or laser bolts around, and your ability to cajole paychecks out of the local gentry might take a nosedive.

Interior locations are nicely rendered, looking rather like updated versions of the old Omnirend classic *Breach 2* layouts, which isn't a bad thing. Mythos seems to have retained the graphic richness and complexity of the interiors from *TFTD* while providing a bit more open space to maneuver in, something veteran X-COM-landers will probably welcome. There are plenty of things to hide behind, toss grenades over, and accidentally destroy. The variety of locations is truly amazing, ranging from warehouses and apartments to spaceports, factories, and government buildings. And of course, all of these are multi-story buildings.

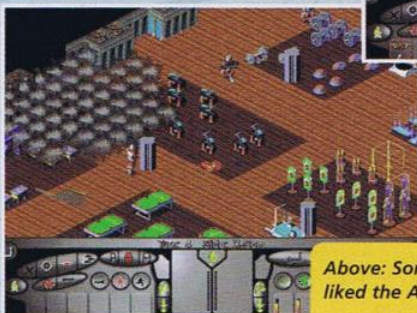
Apocalypse continues the tradition of pacing put forward in *X-COM*. The tactical combat model contains a unique treatment of 3D combat that, if anything, is more sophisticated than past X-COM games. The higher resolution of *Apocalypse* makes multi-level battles easier to manage, and provides more mapboard real estate. These locations are bigger, too, and players will be able to muster more than just eight agents for each battle; up to six squads of six agents apiece can participate in a battle, though such an overt act of Armageddon would be overkill for most situations.

You might very well need those extra bodies, too. Both the original *X-COM* and its sequel had pretty good computer



Above: Someone sure liked the Art Deco look...

Left: X-COM aircraft en route to an alien sighting.



and rash for a devastating ambush. During turn-based play, X-COM agents with remaining action points react through opportunity fire, which includes taking cover and trying to get out of the way of alien grenades. Unlike *TFTD* — which rather unrealistically forced players to start from technological square one in their war against the aliens (Spear guns? We forgot about lasers, and all we have are *spear guns*!?) — *Apocalypse* gives X-COM some heavy firepower from the beginning, with even better gear awaiting through progressive

research efforts. Machine guns, laser rifles, and a variety of heavy weapons are available from day one, which is good because the aliens aren't packing Saturday night specials either. Apparently, gun control legislation has made about as much headway in the alien dimension as it has here on Earth.

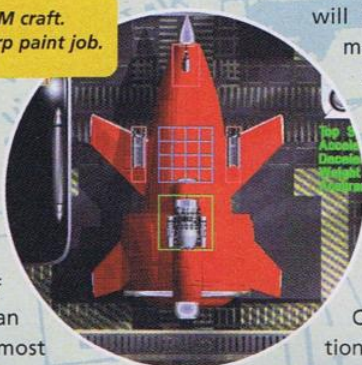
WHOSE TURN IS IT?

Apocalypse adds a lot to the by now traditional X-COM mix. One of the most anticipated (and, in some quarters, dreaded) new features is real-time tactical combat. Let's reassure the fearful first: this isn't *Command & Conquer* or *Warcraft II*. As fine as those games were, they admittedly appealed more to action-oriented gamers than to most dyed-in-the-wool strategy aficionados. Real-time combat in *Apocalypse* has more in common with *Close Combat* or *Harpoon* than with anything from Westwood or Blizzard. You can pause the game and give orders, command from the overhead tactical map, set many parameters that govern unit actions, and generally retain control of the battle.

Speed is adjustable — from rather plodding to quite brisk — but face it: the aliens won't let you toggle over to cruise control. I imagine most players will find themselves pausing the game a lot, and proceeding slowly and cautiously in real-time. Real-time combat does speed up battles, but not that much because there is still a lot to do. The detail and complexity of battles in *Apocalypse* should mean there is little danger that this game will become any sort of arcade twitcher masquerading as a strategy game. With the ability to organize your troopers into a number of squads, and to move and fight those squads as units, Mythos has tried to make real-time play as easy and satisfying as possible.

Still, many gamers will opt for the tried-and-true turn-based battles. These will be familiar to any veteran of the Cydonia campaign. There are many additions and refinements, of course, that should make *Apocalypse* the last word in X-COM combat. For one thing, agents can now crawl on their bellies like reptiles, something aficionados have been requesting for years. No more

A typical X-COM craft. Notice the sharp paint job.





ORGANIZATIONS:

Some of the more interesting sounding of the 30+ organizations in *XCOM: Apocalypse*:

Diablo	Ganglords
Cult of Sirius	A cult, of course
Gravball League	Robojocks?
Government	A militiaman's nightmare
Mutant Alliance	What you lookin' at?
Psyke	You talkin' to me?
Sentient Engine	Your computer meets the Shining Path
Liberation Front (SELF)	
Sensavision	Shady media giant
Nutrivend	So, what is in that vending

stalking the battlefield like Andrew Jackson at New Orleans, with the commensurate increase in X-COM death benefits such behavior engendered. Each agent displays his or her remaining action points over his or her head along with a health bar, making rapid assessment of agent status a bit easier. The battle interface still makes extensive use of icons, but by now these are much more readily decipherable than those that graced the original's battle display. Mythos has made other things clearer, too. For instance, informational bars pop up when cursors are left to linger over the interface buttons. The incorporation of hi-res graphics affords a better balance between controls and map area, and overall the new interface is an improvement over earlier versions.

Tactical combat has always represented the core of the X-COM experience and, as if recognizing this from the outset, the developers of *Apocalypse* have made it possible for gamers to ignore the resource management and investigative aspects of the game in favor of jumping right into the carnage. For the first time in an X-COM game, *Apocalypse* includes a scenario generator. Players can select the location (from a menu of over thirty different sites), number of sides (up to eight), and the number of participants per side. You can save these scenarios to disk if you so desire, while a random number seed guarantees variability. These created battles are just that; slugfests devoted to all-out tactical warfare. Some of

the participants and locales for these battles are hilarious, others simply intriguing. Cultists, bureaucrats, law enforcement, business, gangs — all can duke it out in venues ranging from warehouses to temples to government buildings, and even something called a Procreation Garden (I guess things aren't that bad in Mega-Prime after all...). Perfect for those times when tactical carnage is more of a priority than careful investigation or puzzle-solving.

So, how does it all hold together? In the pre-beta I spent some time with, pretty darn well. The interface has a lot of buttons — so many that it will take a bit of practice to master them. The look and feel of the game is different enough from its predecessors to avoid an ennui-inducing feeling of *déjà vu*, yet familiar enough so that veteran X-COM troopers should have little difficulty whupping the aliens in short order. Most of the promised features were activated in the preview version of the game, and most worked as advertised, boding well for the final release version. Like the earlier X-COM games, *Apocalypse* seems to do a good job of blending global (or in this case, metropolitan) action with localized detail. The addition of a real-time option in combat should please those gamers who find turn-based games too slow, while the retention of the tried-and-true turn system should reassure fans of the more traditional wargames. And certainly no one can complain about variety and replayability. More so than any of the earlier games, *Apocalypse* promises to remain fresh and unique for a long time to come. The sheer number of permutations are incredible — the combination of possible foes, locations, and events, plus the scenario generator, should make for great replay value. While the backstory eventually takes you to the aliens' dimension (oops, sorry 'bout that), there seem to be many ways to get there.

APOCALYPSE NOW?

If everything goes well, the *Apocalypse* should occur in the second quarter of 1997. For the Microprose arm of Spectrum Holobyte, this could be the game that gets them back on the track laid by games like *Civilization 2* and *Master of Orion II*; for Mythos, this might just make them a bit more of a household name than they've been in the past. For gamers eager to go once more unto the breach against the *real* illegal aliens, *Apocalypse* might just be the crowning jewel in a tiara of great strategy games. 

MARS TRIUMPHANT? THE STORY AND THEN SOME

It is the year 2084. Environmental damage to the Earth has forced most of its inhabitants into giant mega-cities, or off-world entirely. Chief among these is Mega-Prime, a self-contained megalopolis where, at first, it seemed humanity had found a way to just get along. Ah, but then it started. Things began to resemble a Quentin Tarantino movie rather than utopia. As the press release from Microprose puts it, "the social fabric of society had begun to deteriorate and was accelerating towards complete breakdown." Whew! Sounds like real life, except that in this case, there is a single direct cause (no, not daytime television and radio talk shows): alien invasion. This time, the bad guys are coming from — cue the trumpets — another dimension. Having lost their Mars base, and been forced to put their waterfront acreage up for sale, the aliens have retreated to another dimension, from whence they are returning through dimensional gates to take over the bodies of earthlings. Once inside an influential human, the alien intelligence can wreak havoc on the unsuspecting earthlings (Marvin the Martian would be proud!).

X-COM's job is to root out these alien impostors. Of course, anyone could be an alien. There are over thirty organizations in Mega-Prime, each of which has its own agenda, and each of which could at any time be involved in a sometimes bloody feud with a rival. These feuds, naturally, are the work of the alien-possessed, driven to disrupt Mega-Prime's order and prosperity. Much of this is randomly generated with each new game, so no two forays into the realm of *Invasion of the Body Snatchers '97* will be the same. The aliens range from slug like little fellars that spit laser bolts, to monstrosities that threaten to level the city. Investigation as well as gunplay will be necessary to figure out who's who and what's what, before X-COM can leap through a dimensional portal of its own and take the war to the aliens' home turf. Once more, alien technology will be key to victory, and thoughtful analysis as important as an accurate laser rifle.



previews

Will it be Paper or Plastic?

by Marc Dultz

A First Look at Army Men



For most of us greying, computer-relegated generals, our fanciful childhood began with a healthy military regimen; influenced in part by the banner-waving Cub Scouts and live, day-to-day televised war scenes emanating from the steamy jungles and swampy rice paddies of Southeast Asia. Munching on Wonder Bread sandwiches filled with Oscar Mayer bologna, we sat glued to our brand-spanking new RCA color television. We squatted, cross-legged, silently listening to the brave military correspondents accounts of modern warfare taken to its next iteration.

For my generation, it was our first real experience *witnessing* war. Like our brethren paramilitary Boy Scouts, we were still largely transfixed by the heroic WWII squad portrayed in the black-and-white "Combat!" television series. Cage, Kirby, Littlejohn, Saunders — we burned their names into our already school-book-crammed memories. We lovingly followed the colorful *Sergeant Rock* adventure comic books, and continually sought out the autograph of the steely-eyed soldierly wrestler known as Sergeant Slaughter. Of course, all this hyperbole was frustrating, as pent up desires to command men under fire time and again boiled to the surface. Our answer was archaic if simple; we donned store-bought plastic helmets and took to the backyard field and manicured gardens of Smalltown and Big City, U.S.A. Rose gardens were molded into fortified positions, tree stumps mapped out as the high ground. We ripped open bag after bag of flimsy, but always loyal, plastic toy soldiers, ordering

them to take improvised hills, gallantly charge machinegun nests, and defeat the ever-looming twin menace of Communism and tree mold.

For my generation, it was our first real experience *simulating* war. Somewhere along the way, we matured; swapping tall-tailed war stories for LPs, discovering girls were more than just nurses, and trading in muddied helmets for sidewalk-scraping bell bot-



Below: Various overhead maps are used to illustrate the lay of the land.

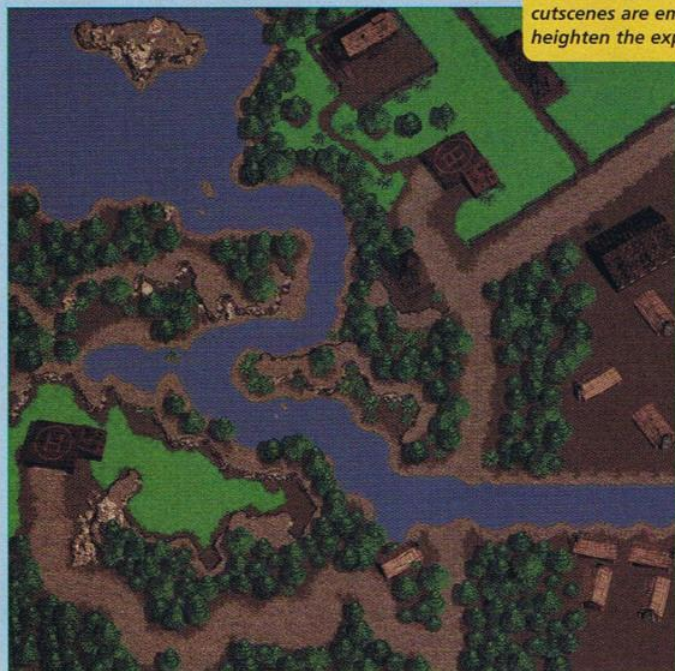
Above: Fully rendered cutscenes are employed to heighten the experience.

tom jeans. The televised sound bites gave way to sitcoms, comics for textbooks, and lo, all those helpless plastic platoons to the vengeful wrath of the mighty Hoover vacuum cleaner. Well, we're a heck of a lot older now, and for many of us nostalgic generals, the imminent release of Studio 3DO's *Army Men* comes as welcome, if long overdue, news from the frontlines. The carpet cleaning repair business, quite understandably, is pleased as punch, too.

TINKER, TAILOR, SOLDIER, SPY

As more and more inductees fill the real-time strategy barracks, game developers continue to search for ways to delineate and differentiate their product from the rest of the pack. An underlying if recurring theme played out across the industry and throughout this issue's pages, companies have continually sought out curious, if sometimes subliminal, tie-ins and methods of creating entertaining, truly immersive environments, in the process hopefully redefining the venue. In the case of *Army Men*, Studio 3DO's in-house real-time strategy war game, the developers may have hit the proverbial nail right on the head.

Owing its genesis and inspiration to those brave plastic souls who gave their lives in the name of democracy and household cleanliness, *Army Men* takes the wonderful concept — comically brought to life in the Disney "Toy Story" movie — to its next,



most logical step. Of course, progressing from the silver screen to the computer monitor in one leap, is no, pardon the pun, small accomplishment. 3DO titles like *Return Fire* and Sega Genesis shoot-'em-ups like *Herzog Zwei* served as an obvious starting point, engendering the design team with the spirit and essence of real-time combat.

If it had to be categorized, *Army Men*, for all intents and purposes, is a lighthearted portrayal of real-time World War II era combat. Gone are the psychologically debilitating aspects of men under fire, so successfully underscored in Microsoft's *Close Combat*. In its stead, *Army Men* employs the ardorous "death before dishonor" creed espoused by the airborne, boldly calling upon the very same unwavering loyalty heroically exemplified by your previous battle-scarred, plastic command. Although you needn't worry about how your men plan on scurrying about the countryside (the plastic bases have been fortuitously dispensed with), the soldiers will quickly assume their classic molded pose when subjected to enemy fire. Infantrymen toting bazookas will shoulder arms, so to speak, popping off round after armor-piercing round at nearby enemy targets. Minelayers will be-gin laying minefields while commanders will unleash an unrelenting stream of fiery death and destruction.

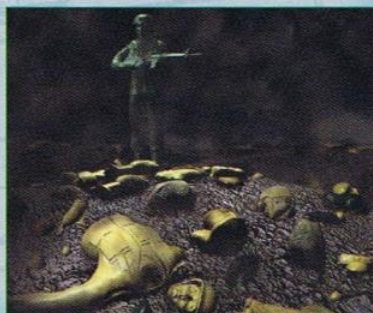
The background story, Studio 3DO is happy to report, is as flimsy as a palm tree-dangling, napalm-cooked sniper. Essentially, the game consists of eighty scenarios segmented by twenty maps. The player must confront one of four completely different computer-controlled opponents, selected by the player prior to play. Each of the four computer-controlled commanders will field radically different forces, based upon the military precepts and unit mix each branch of the service typically employs. For instance, one of them may rely upon a great deal of tanks, infantrymen and artillery troops to win, while another may be predisposed to using gunboats, bazookamen and engineers to carry the day. Fortunately, failure to win the level, while dire, isn't campaign-threatening. For those players who enjoy more of a story-based element, *Army Men* will provide campaign missions within individual objectives such as liberating a POW camp, repairing a bridge, blowing up a radar installation, etc.

GREEN WITH ENVY

The opposing battalions of sea green and desert tan troops are comprised of the bare-bones mix of plastic soldiers. Fielding identical units for both sides, each commander will only be able to muster a grenadier and flamethrower, a mortarman and anti-aircraft specialist, a bazooka-man, an engineer and a commander. In addition, there are five command vehicles portrayed in the game, ranging from a tank, half track, jeep, gunboat and attack helicopters. (Okay, so there weren't any attack helicopters in World War II. This is make-believe, bub.)

Every unit and vehicle is 3-D rendered at a higher than normal contrast setting, while their color has

been slightly oversaturated to accurately depict the molded, inexpensive qualities of the poly-bagged troops. Units populate an extraordinarily photo-realistic world complete with all manner of stunningly rendered fauna, waterways, buildings and structures.



Four regions are depicted in the game; high alpine, desert, south seas jungle and swampy bayou. Each region depicts various worldwide climatic as well as geographic conditions, permitting units to slog their way through mud, grass, bog and sand to

defend and destroy their respective HQs. Both day and night missions for every scenario are portrayed, giving the game a strange, surrealistic feel uncommon to most of today's real-time strategy games.

Players occupy various command vehicles, monitoring radar scopes for signs of enemy activity. Players can order their troops to board or tumble out of any vehicle, taking care to redeploy their troops as soon as trouble heats up.

While the overall objective of destroying the enemy's HQ is fairly straightforward, the number of available options can dramatically change the course of the battle and strategies used. As an example, players can choose whether or not both sides, units suffer from the effects of friendly fire. Moreover, bat-

tles can be initiated using a rapid replacement system — or none at all. In the former case units can be thrown into battle with great abandon, while in the latter situation, commanders must carefully husband what precious little resources they start out with, sometimes defending and attacking with the very same unit.

GUNS OF BUTTER?

While you needn't worry about "Seinfeld's" Kramer character igniting your soldiers or kicking up sand into your bivouac (remember the early eighties *Fridays* skit-com which catapulted Michael Richards into comic stardom?), your forces will invariably suffer much the same fate as they did when you first set eyes and hands on them. For instance, hapless troops succumbing to withering gunfire may have their arms or legs blown off, while those victimized by searing flamethrowers will scamper off screaming in day-glow seething pain.

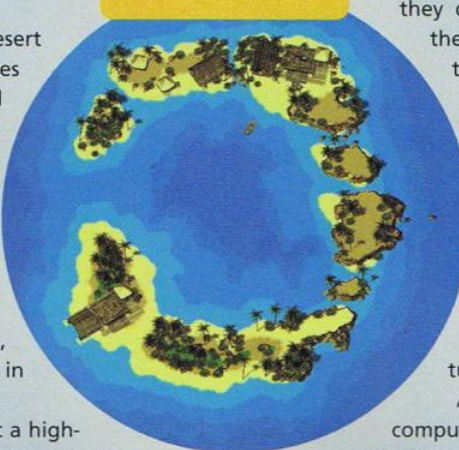
Wherever, and whenever possible, the designers have intentionally sought to retain the very same play elements which has endeared the original ill-fated plastic soldiers to its audience. Troopers melt, vehicles explode and structures cascade into tumbling heaps of ruins.

Although *Army Men* is great fun against the computer, the game truly shines in multi-player mode. Players can choose to go one-on-one via a modem



A variety of software rendering programs are used, such as SoftImage and 3D Studio (sorry, no relation to Studio 3DO), to create the photo-realistic world, units and vehicles depicted in the game.

A peaceful island atoll just prior to invasion.



hookup or can enlist two more buddies and a local area network to achieve a four-player, no-holds-barred free-for-all. Three types of multi-player games are available; an all-out war to destroy all the other player's bases, a vehicle-based conflict entailing destroying all of the enemy's commanders, and a deathmatch mode.

The last time I had this much fun was eons ago when my toy soldiers pirouetted in agony, then promptly somersaulted off four drawer-high mahogany dressers.

SEIZING THE HIGH GROUND

Wedding the antics and simplicity of childhood fantasies with a simple-to-use, "why-didn't-I-think-of-that" design, *Army Men* seems poised to rekindle fond memories, reinvigorate the genre and, of tantamount importance, wreak havoc on many a monitor-sized battlefield. Oh, and did we mention that the landscaping unions are tickled pink as well? 



RISE AND SHINE, PRIVATE!

As you may or may not recall, about the only similarity each plastic soldier had with one another was their molded plastic base. Apart from that, *Army Men* contains about as many different soldiers and combat vehicles as, well, the typical army. Here's a sample of the recruits that'll be placed under your command:

	Unit	Weapon	Usage
	Rifleman	Rifle	Good for long distance fire
	Flamethrowers	Flamethrower	Good offensive striking power Can duck under the range of grenades Always scores a hit against targets in range
	Mortarman	Indirect fire shells	Good offensive striking power Excellent defensive unit
	Bazookaman	Missile launcher	Powerful striking power Can hit long range targets
	Tank	Large Cannon	Slow, but takes a lot of damage
	Half Track	Heavy Machinegun	Can pick up or deploy units Can move artillery or anti-aircraft guns
	Jeep	Small Machinegun	Can pick up and deploy units Fast but weak weaponry
	Attack Helicopter	Machineguns	Reconnaissance and stand-off capability Air-to-Air missiles Vulnerable to Anti-Air Artillery
	Anti-aircraft	Anti-Air Artillery	Provides Anti-Air Artillery protection
	Commander	Heavy MG	Leads units into battle
	Gunboat	Heavy MG	Can pick up or deploy units Travels down waterways
	Engineer	None	Can repair damaged vehicles
	Grenadiers	Grenades	First to fire at heavy infantry and vehicles
	Mine Layer	Mines	Lay and retrieve mines

Death on Two Legs

by Shane Mooney

A First Look at Demon Isle



While computer game companies have been hopping on the real-time strategy bandwagon with ever greater abandon, roleplaying fans seem to have been unceremoniously trampled underfoot. From the sidelines, it sometimes appears as if software developers are trying to fill almost every conceivable niche, perhaps overlooking what was arguably its strongest genre.

Fortunately Sierra, working in conjunction with the folks over at newcomer Cat Daddy Games, are intent upon filling that important void. *Demon Isle*, Cat Daddy's debut product, looks to combine the best elements of first-person action gaming with all the requisite features of the more traditional CRPG.

HERE THERE BE MONSTERS

The story takes place sometime in the ubiquitous Dark Ages, when magic and monsters were as plentiful as fair damsels in distress. Apparently the land of Magincia has experienced more than its share of trouble. Evil creatures once abounded and, to alleviate their dilemma, the populace banded together to beat back these minions of hell. To their credit, the people relentlessly drove the evil doers off of the mainland, permitting them to take refuge on an uninhabited island, known forever after as Demon Isle.

In times past, there was a magical bridge that joined these two kingdoms, permitting the monsters access and free range to the unprotected mainland. Twice now powerful mages have destroyed this bridge, realizing that failure will once again ignite another exodus. Serendipitously, the second explosion somehow caused the bridge to reappear, allowing the creatures to wreck sad Magincia anew. Though the bridge has again been destroyed, and the denizens have been beaten back to their island sanctuary, it has readily become apparent that the only way to ensure the continued tranquility of Magincia is to destroy, once and for all, the dominating Evil Presence residing at the heart of Demon Isle.

The ruling powers are willing to fund a conquering expedition to the island. Unfortunately, most of Magincia's military has been exhausted establishing three magically-defended forts on the island, so the people are counting on the willingness of some brave (read: foolish) man or woman to step forward to accept the challenge. Naturally there's plenty of fame, fortune and adoration for those who manage to save the land. Knowing all this, you decide to take it upon yourself to go and face off with the evil that seeks to destroy all that it surveys.

Once on the island, it becomes clear that this Evil Presence is more than just some strong magical entity that no one knows how to kill. He has created seven temples of evil, each guarded by an

evil boss, with each having an overlord to a specific brand of monster. Why, you may ask, are there these heavily guarded temples? Well, simply put, each temple holds a magic relic that can destroy the Evil Presence if all are used together. Instead of merely destroying all seven pieces, the EP decided to just guard them (he



Naturally, you'll be asked to go one-on-one with the many creatures bent on turning you into Monster Chow.

may be strong, but he's none too bright). A clever and cunning human, such as yours truly, now must get through each temple, collect the seven pieces and destroy the Evil Presence once and for all.

FIRST PERSON FANTASY

Demon Isle attempts to take the adrenaline rush of a first-person 3D game and mix in a heaping helping of roleplaying elements with a pinch of linear story-based adventure thrown in for even more fun. The gameplaying screen has you viewing the action from a user-defined screen like many first-person games, choosing usually anywhere from quarter to full screen, with access to your supply of weapons, magic and treasure just a click of the icon away.

When I first started *Demon Isle* up, I was given the option of creating my own character. After selecting the name, I was given only so many points with which to modify his attributes such as strength and constitution, deciding which was most important while realizing that, with each battle and confrontation, the values would increase with the experience gained. I also had at my disposal a small arsenal of weapons, spells and armor. And I wouldn't even think of going anywhere without my trusty monster guide that gave me pictures and descriptions of the creatures eager to do me in. Using the arrow keys to navigate and the <CTRL> key to slash away, I was ready to take on whatever mon-

strosities lay before me.

And lay before me they did. No sooner had I left the safe haven of one of the cities but I ran into a giant fly circling about the Maggot Swamp, intent on laying a few eggs into my soon-to-be-decaying corpse. As I engaged in serious hand-to-feeler combat, the fly would drop items for me to pick up, all the while watching as my sword and crystal ball gauges told me my health and magic points were dwindling dangerously low. Having had my fill of swordplay, I decided to pull a spell from under my hat and finish him off with a flaming fireball.

Because it's a first-person game, I figured I'd be looking at something similar to *Quake* or the Build engine, but that wasn't what I got at all. Cat Daddy is going with a proprietary engine that should bring 3D outdoors, so to speak. If you notice, with most games that use polygon-based engines, the scenery only takes place indoors, with lots of narrow corridors. Hacking and slashing in the open expanse would slow your Pentium down to a 286 trying to render all the detail.

Cat Daddy is using what they call a "fractal terrain engine" which will render detail off of a contour map with mountains and valleys. When a mountain appeared out in the distance to the North, and a lake appeared to the South, I was able to see the lake from the top of the northern mountain scaled to the correct distance. The fractal terrain gives the game geographic consistency in an outdoor world that is difficult — if even possible — to do with a traditional 3D engine. And don't think that this scenery is going to be the low-res 320 x 200, 8-bit color mundane environment. No, *Demon Isle* will be 16-bit high color with a 640 x 480 screen resolution.

And it must be admitted that the scenery looked pretty good. Whereas many true and not so true 3D games lose a lot of detail the closer you get, *Demon Isle* still managed to maintain quite a bit of sharpness. The horizon was naturally very attractive, with graduated colors in the sky and differing features throughout the land, making it feel like you really were out of doors, having an unheard-of amount of freedom just to roam around.

One of the benefits of this engine is that it speeds things up tremendously, being able essentially to store several gigabits of data in a single fast polygon-generating algorithm. Not only will objects in the distance be drawn quickly and to scale, but the graphic detail will automatically scale up or down to match the speed of the machine you're using. Instead of turning features such as color dithering or Gouraud shading on or off, the fractal algorithm will scale the detail of the scenery before resorting to such drastic measures.

MULTIPLAYER MAYHEM

As anyone who's bought a shrink-wrapped game — then waited patiently while the company worked feverishly to write the multiplayer patch — knows, great gaming experiences seem to be more of an afterthought than an integral part of the game, as if software developers put more thought into the octagonal box design than in the Internet play. But Cat Daddy made sure that *Demon Isle* was multiplayer from the moment the first line of code was written. It is so integrated that when you're playing a single-player game, the computer views it as a multiplayer game with just one person. As long as the game server is run on a fast machine with a high-bandwidth network connection, *Demon Isle* will support 1 to 32+ players simultaneously. Also, *Demon Isle* incorpo-



Though very early in development, you can still notice the quality 3D graphics of the great outdoors.

rates what's called "lazy-synchronization," which will keep games with low latency playing smoothly without the noticeable pauses commonly associated with Internet play.

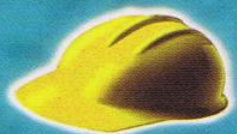
While many have heard about promising role-playing games more times than they care to recall, merely to have them fizzle out or turn into ubiquitous vaporware, the fact that the game is going to be published by Sierra, and the fact that they're already ahead of schedule, shows that Cat Daddy should have no problems in getting *Demon Isle* to market by September. This will no doubt ensure a happy holiday season for all aspiring monster killers eager to unsheathe their swords and get to saving the free world as they know it. 

Getting Lazy For Better Multiplayer

*As you noticed from the preview, though *Demon Isle* is intended to be fantastic as just a single-player game, it's been designed from the ground up to be multiplayer, offering as many as 32 or more people the opportunity to explore the fractal terrain together. How exactly do they do this?*

Virtually all games with fast-action that play over the Internet use what's called a pure-synchronization model for their multiplayer, which means that every player's machine has exactly the same view of the world. This is generally viewed as a good thing, except for the fact that you need a very low latency connection, like a network or ISDN line, in order to play and not notice that there is something slow going on. The analog modems that everyone and their ISP uses is going to result in low frame rates and other annoying delays and graphic quirks.

Demon Isle's multiplayer engine, on the other hand, uses a lazy-synchronization model. This doesn't mean lazy on the programmer's part, as it's more difficult to achieve than perfect synchronization. What it simply means is that when the game server indicates that a client's view of the world is slightly off, the client smoothly fixes its game state information in such a way that it is not obvious to the gamer. The end result is that whether you are on a LAN or on just plain vanilla modems, you won't get those all-too-annoyingly-familiar game stalls you experience with fast titles. The lazy-synchronization model simply plays on as if nothing has happened, and fixes the world transparently when the next data comes from the server.



previews

Divided Destiny

by Ed Dille

A First Look at Outpost 2



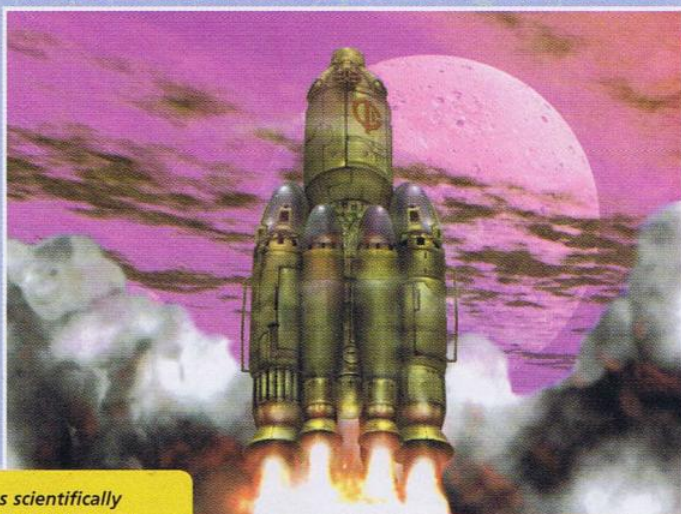
The first question that comes to mind is, "Why would Sierra want to create a sequel to a game franchise when the original product performed so poorly?"

In hindsight, it wasn't so much that the original concept was crude, but more a matter of its not being fully and properly executed. That said, name recognition is a double-edged sword, sometimes working to someone's disadvantage.

HARD SCIENCE?

Due in large part to the background and experience of the lead designer, *Outpost* was strongly grounded in actual scientific research. Bruce Balfour, the game's chief proponent, drew much of his material and information from working for NASA. Using their research — as well as information gleaned from other governmental agencies — the design team sought to adhere to a hard scientific approach for establishing the game's high concept. *Outpost*, then, was as much a white paper — examining how scientists expect to deal with the rigors of developing an offworld colony in the not-too-distant future — as it was an actual game. *Outpost 2*, on the other hand, is so far removed from the reality they sought to depict that it might as well be set a million light years away from Eden, the colony

the *TV Sports* series. Cook maintains that "the difference between a game designer and a municipal bond is that someday the municipal bond will mature." It's a healthy theory for a game designer to suggest but, in point of fact, the designs themselves need to mature before the public will cast a second wary glance in the



Outpost 2 is less scientifically grounded than its predecessor.

same fateful direction.

The backstory of *Outpost 2* occurs sometime after the Eden settlement has begun, and centers upon a second split between the colonists. If you recall, the original rift occurred because the colonists couldn't decide whether it was wise to continue their efforts to terraform the planet, or to redirect their efforts toward adapting to the hostile environment and immediately improving their quality of life. Those who favored the latter approach splintered away from the main group to form Plymouth, their own colony on the same planet.

With the rebellious faction no longer present to tender further objections, Eden developed the technology to begin terraforming the planet. Their results were dramatic if unappreciated. The inhabitants of Plymouth eventually lodged formal complaints against Eden; the ensuing tension mounted further still. Eden offered an olive branch by way of sharing the technology they had developed. The Plymouth sect only viewed this as further proof that Eden had become arrogant beyond all tolerance. Both sides initiated a prolonged arms buildup, and a protracted cold war followed. With some careful prodding by the player, the long-expected conflict — which remained a dormant fact of life for so long — eventually begins to heat up.

MUSTERED OUT

What kind of war should the player expect? Well, it doesn't take a rocket scientist to see that the interface is a dead-on clone of *Command & Conquer*, right down to the manner in which units are



reintroduced from the prequel.

Then again, the background of Patrick Cook, *Outpost 2*'s lead designer, is as far removed from hard science as the sequel is from the original game. Cook, a ten year veteran of the game industry, has spent the last 5 years of his life developing Dynamix's *Front Page Sports* license. Before stepping under the Sierra umbrella, he cut his eye teeth at Cinemaware, acting as the designer, producer and quality assurance manager for *Defender of the Crown*, *The Three Stooges*, *Rocket Ranger*, *Lords of the Rising Sun* (perhaps his best work to date), *King of Chicago*, *It Came From the Desert* and

rubber-banded into groups and issued orders. There's some variance regarding unit build types, all of them based upon robotically-operated designs instead of manned vehicles. There are trucks, tanks and construction or mining equipment. The tanks are portrayed as light, medium and heavy vehicles, and can be equipped with different types of weaponry. The weaponry gets fairly exotic, including a strange mix of rail guns, electrostatic grenades, corrosive acid clouds, starflares and even one weapon that fires green globs of sticky foam to temporarily immobilize an enemy unit. The supernova is as ominous as it sounds, and a single blast can take out some buildings while damaging others within immediate proximity. The finished version will supposedly include upward of 60 vehicle types, hopefully adding airborne units and other weaponry which can be used in combined arms operations.

As for buildings, there will be 80 different types included. In addition to their command center, players will have to construct a power plant and a factory in order to erect other buildings and units. The science lab is another facility which will have to be created early on. The lab is manned by scientists who, at this stage of development, are the only specialized inhabitants of the colony. The rest of the inhabitants are referred to rather generically as workers.

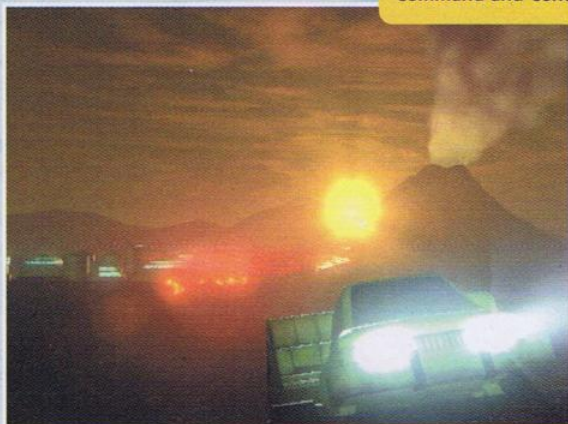
Managing population resources, then, seems fairly straightforward. One disturbing note is that children periodically show up on the reports as colonist deaths. Why they are specifically delineated isn't readily apparent, but I can only hope that they aren't gratuitously mentioned, and that the designers have some underlying reason to include them in the final version.

In the science lab, players can stipulate what areas of interest are to be researched, in which order, and how many scientists are to be allotted to each project. The research technology tree doesn't appear to be anywhere near as complex or engaging as those depicted in either *Civilization* or *Master of Orion*. *Outpost 2* isn't as deep as either of the aforementioned titles, so it will probably remain a constant mitigating factor throughout the balance of the design.

Managing research and development is a cornerstone of any sound military doctrine, to avoid the perils of getting caught up in a "doomsday gap" (with apologies to Dr. Strangelove). Scientific research is no less critical, remedying or at least minimizing any environmental hazards. Both colonies are periodically subjected to the ravages of Mother Nature. These include earthquakes [sic], lightning storms, vortexes, meteorite impacts, and even volcanic eruptions which discharge lava flows which can engulf an entire colony. (Shades of *Populous* and other prominent "God" games of the not-too-distant past.) Again, none of these features were implemented in the preview version of the game, so they cannot be critiqued at greater length.

THE INTERGALACTIC DOLLAR

The economic model appears even more primitive than the one depicted in *Warcraft II*, which at least required lumber in addition to gold for most projects. *Outpost 2* is founded upon a mining



model, and most objects can be fashioned from common ore. Rare ore can also be prospected, and becomes a necessary ingredient for the creation of some of the more stalwart units. As players might expect, the economic model portrayed is based upon controlling mines, although players can salvage ore from destroyed enemy units — which adds a new wrinkle the other titles failed to consider.

Like *Warcraft II*, *Outpost 2* uses a veiled map, which dictates that the players explore, and explore quickly, to unmask the surrounding regions. This contrived "fog of war" seems very artificial for a planet which has been colonized for as long as this one supposedly has. I guess that, even in space, colonists look the other way when it serves the purpose. Each map-board design has a *Warcraft II* charm about it. Once a map is unmasked, the key to success lies in discerning and controlling the natural chokepoints (a.k.a. avenues of approach), funneling the enemy's troops through the passes to reduce their effectiveness. *Outpost 2* will include static guard towers with several types of weaponry — again similar to *Warcraft II* — so the player will be able to create man-made chokepoints to guard any avenues of approach.

That's not to say that *Outpost 2* doesn't contain any innovations: case in point, night operations. Several units are more — or less — capable during night maneuvers, just as they would be in real life. This facet of the game opens the door for some creative tactical considerations, and grognards will appreciate what opportunities arise from it. After all, everybody loves to launch a good sneak attack when they can hope to pull one off.

Single players can tackle any of the 24 mission-based scenarios, or pursue them sequentially as a campaign. Non-interactive cutscenes are planned to advance the storyline between each scenario, but none were present in the build I worked from. In multi-player mode, up to six players will be able to play either cooperatively or competitively over a modem, a LAN or via the Internet.

SCREAMING IN SPACE

Honestly, first impressions on this title weren't overly optimistic, but I should point out that the code provided was in a pre-alpha stage of development. Come back in a few months for the full story in all its glory — or for the post mortem, as the case may be. 



previews

Of Blood and Iron

by Robert Mayer

A First Look at Imperialism



Back in the waylaid 1980s, Strategic Simulations Incorporated (SSI) produced a game entitled *Colonial Conquest*. The design was set in the 19th century, when Europe, Japan, and the United States jockeyed for power in the rapidly-emerging industrial age. Surpris-

ingly entertaining, the passing of this 8-bit effort left a void in commercial software that has remained vacant, at least until now. SSI, working in conjunction with Frog City Software, is set to release *Imperialism*, an updated yet highly detailed take on the age of iron and steel.

It was a time when militarism, money and colonialism all coalesced in a volatile and violent cataclysm known as the Great War of 1914-18. Like its ancestral predecessor, *Imperialism* seethes with savoir faire, modeling both historical as well as hypothetical offshoots as they relate to the era of railroads, steam ships and imperial trade. Unlike *Colonial Conquest*, however, *Imperialism* seeks to take advantage of the finest 20th century inroads, adorning itself with the most modern graphics, sophisticated game design and updated interface improvements.

AN AGE OF ENLIGHTENMENT

Beginning in 1815, and continuing approximately to the time of World War I, *Imperialism* attempts to provide a level of detail and player participation to what some would say is a tried-and-true game formula of expansion and conquest. According to SSI producer Brandon Chamberlain, "*Imperialism* is going to offer gamers a unique gaming experience." Sure, every gaming insider claims that about their products, but in this particular case his words might just ring true.

One of the reasons SSI is so impressed with *Imperialism* is due to the game's highly refined economic, political and diplomatic systems. Other games in this genre typically provide some semblance of international and economic interaction. *Imperialism* seeks to take several steps beyond games such as *Civilization*, while simultaneously moving away from the limited diplomatic options provided in a game such as *Master of Orion*. A tall order indeed — the early signs, though, are quite encouraging.

Working with early code for this preview, I noticed the product was limited to randomly generated maps, although I should point out that the final version will contain numerous historically based scenarios as well. The maps in the game are both crisp and clear, though by no means especially realistic; the emphasis, rather intentionally, is centered on playability, not on rivaling the Rand McNally series of relief maps. Mountains, resources, settlements and railroads are exaggerated and out of proportion, rather like those old textbook maps featuring farms with over-sized silos and factories with distorted smokestacks. The look and feel is very atmospheric, with muted colors and a sense of old-time elegance

lavished throughout. A square, underlying grid is readily apparent, but graphically serves to highlight the league of nations the players will be vying with. *Imperialism* falls somewhere in between *Civilization*'s flat and unremarkable counters and *Conquest of the New World*'s three-dimensional figures; units are free-standing,

An army marches off to war.



partially animated two-dimensional icons representing soldiers, prospectors, engineers, and so on. On balance, *Imperialism* is attractive, especially when you examine its fully-comprehensible diplomatic, economic and trading screens. While the graphics may not compare to the best artwork currently available, they are definitely better than most.

Gameplay follows a generally accepted —if routine—sequence of events, perhaps typical of games of this sort: gather resources, improve production capacity, build units and, of course, expand. (Repeat as necessary, twice daily.) Where *Imperialism* seems set to break from the pack, however, is in its depth of play and underlying complexity. There's a lot more going on here than simply moving a few units around, or waiting patiently while the coffers fill up with gold. Cities, for example, can build a multitude of industrial plants, each of which requires a specific set of raw materials to produce a specific type of finished good. Said raw materials must arrive at the factories via rail lines. Railroads have to be constructed by engineers, presumably only after prospectors have located deposits of these raw materials. In fact, some of these intriguing matrices joining materials, plants and products are quite complex. In many respects, it is highly reminiscent of the commodities system used in *Railroad Tycoon*, except the model portrayed here is far more detailed. Therefore, each nation's economic performance is tightly interwoven with its quantity and quality of natural resources, which of course causes all manner of

imperial entanglements as the game progresses.

This complex interrelationship means that trade is also more individualistic and more satisfying. Each country's gross national product depends upon its level of raw materials, transport capacity, and its ability to convert these materials into finished products. In many ways, trade becomes the focal point of *Imperialism*. In further discussions, the game's producer, Chamberlain noted that he was quite pleased with what he termed the "real dynamic economic model" in *Imperialism*. If everything hangs together in a cohesive manner, *Imperialism* will be, without a doubt, the most sophisticated game of its type. For instance, trade with other nations depends not only on money, but on availability of goods, the prevailing political climate and the status of trade agreements struck between nations. Depending upon what it produces, each

nation can place commodities on sale in the open market. Prospective buyers then proffer bids on these goods. The auctioning nation must then decide whether to sell these goods at the prevailing price or actively seek other offers. Trade treaties are possible, although duties or discounts placed on foreign products range from nominal to prohibitive, triggered by the extremes of a trade union or out-and-out boycott of the goods. For perhaps the first time, economic warfare looms as a real possibility. Nations with a vibrant and robust economy, possessing many of the most desirable goods, should be able to use their economic muscle to exclude foes from their markets, establish mercantile dominance, and drive their enemies out of business without so much as firing a shot in anger.

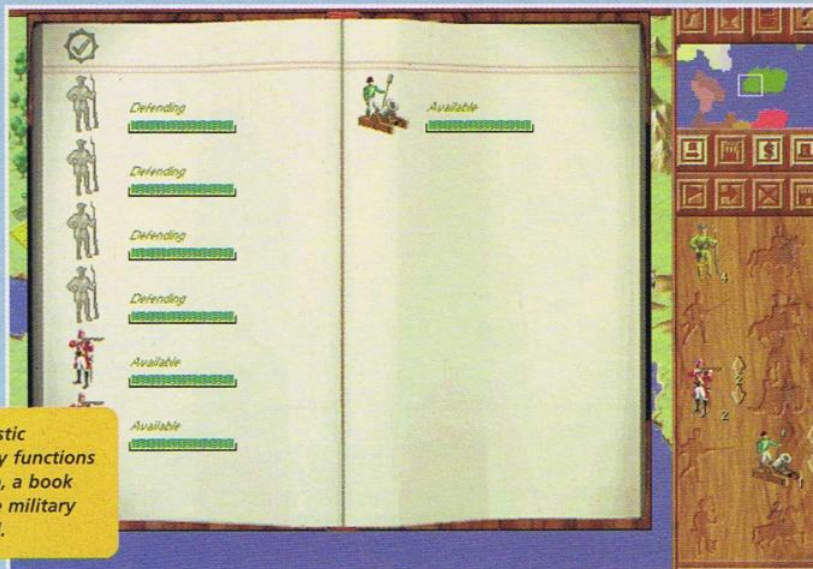
GOODWILL AMBASSADOR

Diplomacy will also represent an integral component of *Imperialism*. Warfare in the 19th century usually involved the exchange of transcribed notes, declarations of war, and military operations invoking little strategic subterfuge. In *Imperialism*, warfare isn't an option to be taken lightly, usually requiring both premeditated military and diplomatic action. The most common causes of conflict rise from trade disputes. Usually nations will begin to feel threatened by other, more prosperous neighbors, fearful perhaps of being cut off from essential raw materials as rivals continually establish new colonies.

Naturally enough, colonialism represents a key facet of the game. Nations best able to wield their political, economic and military power can eventually persuade lesser powers to join their empire or commonwealth, thereby giving the mother country right of first refusal on all raw materials exported from the colony. An aggressively-postured nation can readily anger its competitors by freezing them out of the world markets which can easily lead to war. Therefore, *Imperialism*'s political dimension promises to be dynamic, innovative and challenging, qualities that would certainly put the game in a category all by itself.

THE GUNS OF AUGUST

If war is unavoidable, *Imperialism* makes available a wide array of options and factors which will undoubtedly influence the outcome. After all, although nations will have to raise their military forces, other considerations will have to be made, too. For instance, moving armies overland requires not just railroads... but a fairly high rail capacity. Transporting the troops overseas, on the



Books are euphemistic metaphors for many functions in *Imperialism*; here, a book shows the available military forces in the capital.

other hand, requires both a navy and merchant shipping. Even conducting amphibious operations on hostile shores is a two-turn process. The invading fleet must spend a turn lying offshore before disembarking troops, and therefore becomes vulnerable to interception and counterattack.

Several types of military units will be included, ranging from basic garrison and militia forces to elite cavalry, infantry and artillery formations (the final version of the game may also have an option to resolve battles at a more tactical scale, though this aspect hadn't been implemented in the code). Since everything is tied so heavily to economics, players will not be able to muster or command the huge armies prevalent in other, more abstract strategic games. Wars will take on great importance, their prosecution requiring players to conduct them with utmost care and attention to detail.

Fortunately, since the game begins well after the age of exploration, there are no shrouded maps to grapple with. Everyone in the 19th century knew the general lay of the land, although the exact specifics of certain distant regions were often difficult to come by. In *Imperialism*, players will be able to watch where their invasion forces are heading, and have a fairly good idea of what they might expect to run into when they arrive. Curiously, only prospectors will be able to discern where resources are located within a foreign power's land mass. Therefore, it might be a good idea to shuffle an extra prospector off with the army.

GREAT EXPECTATIONS

While it's still too early to tell whether *Imperialism* will fully live up to the hype, indications — even at this early juncture — are promising. Chamberlain assures us that the game will feature skilled computer opponents with distinct personalities, such as an industrialist, a naval supremacist, and an adroit diplomat. He also notes that an advisor function, invoked at the player's discretion, will let the player know not only what is going wrong but why, and how best to correct the problem. The goal, he explains, "is to allow players to run a nation — not micromanage a gaggle of cities or planets — and to run it in a more or less human time frame rather than [over the course of] thousands of years."

Clearly, *Imperialism* maintains high aspirations and lofty ambitions. Containing an extensive economic, diplomatic and military core, multiplayer capability, and both historical as well as randomly generated scenarios, *Imperialism* promises to be a title to watch out for as the gaming tide slowly sweeps in.

Mask of Command

by M. Evan Brooks

A First Look at Great Battles of Alexander



Great Battles of Alexander (GBA) represents Interactive Magic's first turn-based wargame which examines warfare in the days of antiquity. GBA is based on the GMT boardgame, developed by the well-known design team of Richard Berg and Mark Herman. The GMT "Great Battles of History" series includes, among others, *Alexander*,

SPQR, *Caesar*, *Samurai* and *Lion of the North*, plus several expansion sets, and a forthcoming title — *Cataphract*.

In all candor, these games are designed for the grognard and require a basic familiarity with the board gaming system to understand the computerized version of GBA. After all, ancient combat didn't emphasize finesse and maneuver. In 1971, my first *Strategy & Tactics* magazine contained a game called *Centurion*, which attempted to replicate warfare in the age of the Roman Empire. The basic lesson I learned was that once contact was made with the enemy force, a simple hack 'n'slash mentality developed, continuing on until someone decided that discretion was the better part of valor. To sum it up, the system and historical period portrayed were anything but subtle affairs, and tactical level ancient warfare has never risen to the same ranks as some other more popular warfare periods.

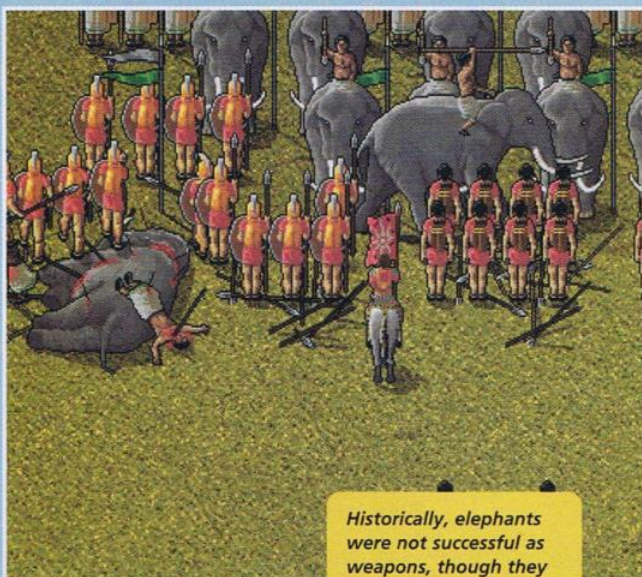
With GBA, one question quickly surfaced; could a boardgame and its computerized port succeed at replicating history and selling games? Previous computerized efforts at modeling ancient warfare have been few, and their historical accuracy seemed as truthful as Tony Curtis' Brooklyn accent in *Spartacus* ("Rome is da mudder of all nations"). But Berg and Herman have done a masterful job, researching what precious facts have been gleaned from historical sources and hypothesizing, of course, where applicable.

DELBRUCKIAN METHODOLOGY, KEEGAN-ESQUE EXECUTION

Although most people know that Alexander was one of the most successful generals in history, they usually aren't particularly aware of his employed tactics and strategy. The Macedonian leader was one of the few generals ever to succeed in every aspect of war — set-piece battles, formal sieges, guerilla warfare and, whenever possible, the pursuit and exploitation phase. Two accounts seem to be the most valid sources of obtaining a better understanding of both Alexander and the game — Hans Delbruck's seminal *Warfare in Antiquity* and John Keegan's highly-

acclaimed *Mask of Command*. *Warfare* is a detailed analysis of Greek and Roman warfare, with great emphasis placed on describing Alexander's battles; *Mask* notes the importance of the individual — especially the charismatic leader — in battle.

GBA takes a similar posture, decreeing that leadership — both good and bad — serves as a decisive element in war. The player is supplied with several leaders, each of whom can move a certain number of their respective troops. Oftentimes, instead of launching or repelling attacks, the leader must act as "fire brigade" — rushing helter-skelter across the battlefield, activating subordinate troops and attempting to push them forward into action. The player then must balance the role of each leader, deciding whether to use them as either a combat force multiplier or a logistical/maneuver force multiplier. Essentially, victory is awarded to the player who can squeeze the most out of his leaders.



Historically, elephants were not successful as weapons, though they helped terrorize the enemy.

VIRTUAL ALEXANDER

Developed to play under Windows 95, GBA requires at least 12MB of RAM to run properly. The player may opt to command the Macedonian army or its opponent; in addition, the player may choose to have the computer play against itself (a good learning tool), or initiate multiplayer games by choosing between modem, LAN or Internet connections. The graphics have been enhanced, and provide a unique 3D perspective at three different zoom levels. The appearance of the troops is equally well done. As infantry closes, the player can watch the troops unleash a hail of javelins at the enemy. Casualties appear underfoot, and eventually one side will begin turning away from battle and withdrawing — historically, the most dangerous phase of battle for the defeated.

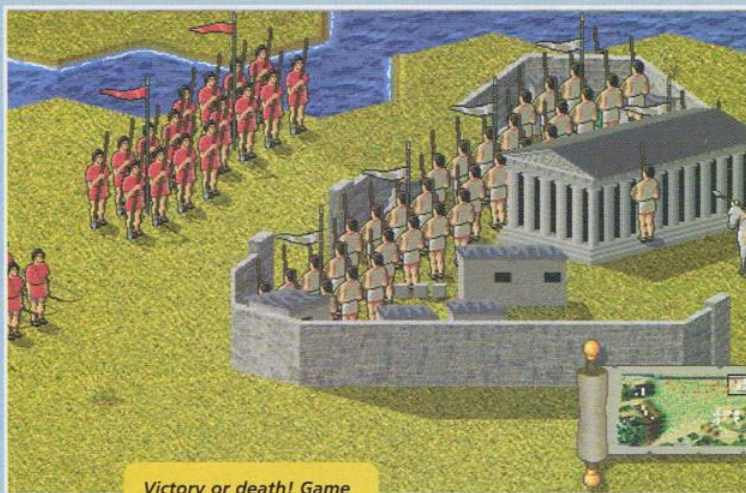
Cavalry, chariots, light skirmishers, peltates, slingers — all contribute to the panoply of *Alexander*. And then, of course, we have the elephants. Historically, the employment of elephants in battle surprised the Macedonians, and while they were never truly successful as a weapon, the animals did, in fact, help to terrorize the enemy. In time elephants, over the course of the following two centuries, became commonplace units in the well-equipped army. In game terms, elephants are similar in scope and feel to more modern heavy tanks, "brewing up" or exploding under adverse conditions all too easily. Although they can seize the initiative, a

properly-conducted enemy defensive stand can cause them to inflict damage and suffering to their own troops. Be that as it may, any computerized game which permits the player to create toejam out of enemy troops has got something going for it!

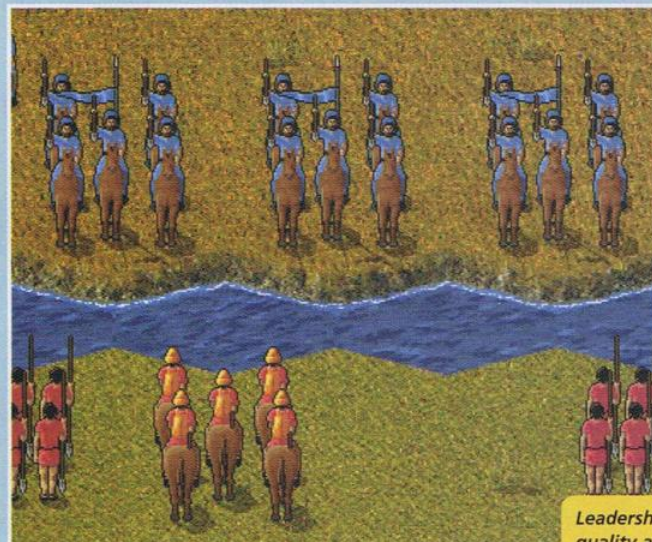
Although *GBA* is turn-based, missile troops move in impulses which are contained within the game turn. Game length depends upon success on the battlefield; it's either victory or death! The ten battles portrayed cover most of Alexander's short career. They include Chaeronea — where he fought with his father; the Greek campaign; the Persian campaign, including the battles of Granicus, Issus, Gaugamela; and finally the later expeditions depicting the battles of Jaxartes, Samarkand, Hydaspes. For an interesting challenge, try Darius, King of Kings. Darius wasn't the fool history makes him out to be; his decisions were often forced on him by political necessity. The Immortals against the Companions offers interesting challenges as well.

MY LEADER OR YOURS?

Leadership and troop quality are the most decisive elements of *GBA*. While the computer game is highly reminiscent of the boardgame, the port takes advantage of the inherent capabilities



Victory or death! Game length depends on success on the battlefield.



Leadership and troop quality are decisive elements.

of the computer. In the boardgame, the player typically tried to seize the initiative by having his leaders move before the opponents could. However, an opponent could attempt to "trump" and seize the initiative. An unsuccessful trump would result in a leader becoming ineffective for a game turn; a "die roll of doom" would result in a crisis of faith.

These options are unnecessary in the computer game. The leaders will utilize initiative and momentum to the maximum extent possible. Alexander himself has three opportunities to seize control, but each use degrades his chances at future success. Thus

the Macedonian player should reserve the initiative for maximum possible effect. Often it is best used as a future threat than as a bygone opportunity.

Units take cohesion hits, which affect their ability to stand in the battle line. Disengaging from battles, then, is one of the most difficult maneuvers to accomplish. After all the emphasis placed upon leadership and its impact, players should, still watch their flanks! Leadership is best used to enfilade the opponent's force, and a

turned flank can rapidly lead to a lost battle. No matter what the situation, focus your attention on your flanks. Attrition should be employed to force a flank, with decisive action following suit.

The user interface is intuitive, and borrows heavily from SSI's *Panzer General*. Click on a unit, and a mapboard shading technique reveals its movement range. Be careful though; no "redo" movement option is provided. If the player makes a poor decision, his only recourse is to reboot to solve the problem.

Alexander himself should be used to move subordinates, effecting some measure of control over the battlefield. The Macedonian king, for instance, was able to enfilade his opponents at one portion of the battlefield, then exploit his success afterwards. If the player chooses to oppose Alexander, he should seek to contain the Greek by seeking decisive action elsewhere on the battlefield.

I CAME, I SAW, I COMMANDED & CONQUERED!

The campaign option can attempt to emulate Alexander's stellar career. In this mode of play, the player must engage in ten battles, while simultaneously taking charge of his strategic reserves and garrisons.

Be forewarned: if insufficient garrisons are left, the Persian navy will remain a serious threat to progress, resulting in certain Greek city-states rising in revolt. Although these rebellions won't generate a new set of battles, they will serve to redirect reinforcements to quell the unrest. In reality then, the player may well face his Persian host with a much-depleted military force.

Discussions with designer Mark Herman revealed some interesting design decisions. For instance, a sound strategy can only hope to equal Alexander's accomplishments. Herman's belief is that the Macedonian leader did the best with what he had; in later games such as *Great Battles of Hannibal*, the player should be able to equate and even to surpass his historical counterpart.

IN CONCLUSION

I have to admit that I found the boardgame difficult to play. Its emphasis on die rolls and morale mandate a careful rereading of the rules to clarify the course of play. In effect, I've admired the boardgame more as a research tool than as a vehicle for entertainment. From initial appearances, the computerized version obviates any hierarchical tedium and permits the user to actually *play* the game. *GBA* isn't a product for the more mass market arcade crowd. Be that as it may, we can only hope that the mainstream audience will eventually try a game such as this, discovering for themselves how interesting a period warfare in antiquity really is.





previews

Down to the Sea in Ships

by M. Evan Brooks

A First Look at Man of War



A grand tactical simulation covering naval warfare during the Golden Age of Sail (1765-1815), *Man of War* represents a collaborative design effort, merging the forces of Strategy First with those of Simulations Canada. While Strategy First has garnered acclaim for their graphical undertakings in SSI's *Age of Rifles* and *Steel Panthers* computer wargames, Simulations Canada have followed a more traditional route, gaining much of their notoriety for various tabletop wargames.

That's not to say that Simulations Canada — SimCan, for short — hasn't tested the waters of computer gaming. Several products have been released over the years, each typically de-emphasizing the graphical component, relying instead upon narrative spot reports and radio traffic to simulate operational warfare. In fact in 1993, SimCan released *Man of War*, their first attempt at computer gaming. Graphically unappealing, the product met with a rather lackluster reception. Retooled and radically improved, the basic game has undergone a metamorphosis of sorts, reflecting their aim to address the expectations of their intended audience.

PIPE ME ABOARD

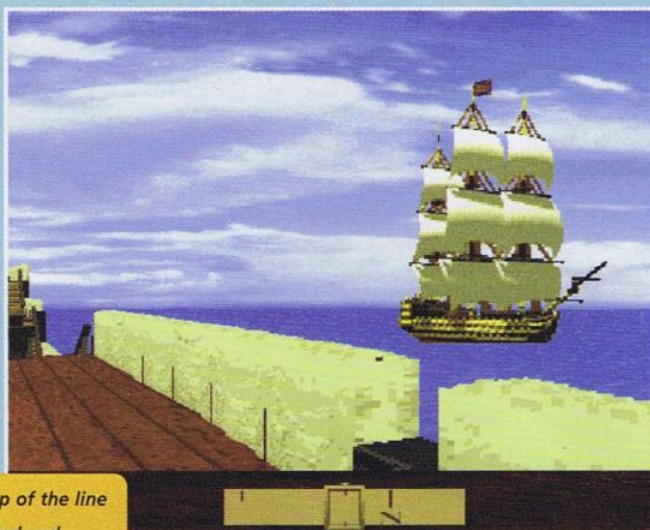
Basic machine requirements aren't overly demanding: 8 MB RAM (16 MB for Win 95), 40 MB of hard disk space, a video card with 2MB VRAM and a Soundblaster-compatible sound card. In the version I got to noodle with, sound, music and modem play were unfortunately disabled. Therefore



Right: A ship of the line
Left: Retooled and improved, *Man of War* addresses the aims of its intended audience.

enhance the overall gaming experience.

Most of the major powers are fully represented in the game. Sailing vessels from England, France — Ancien Regime, Republic and Napoleonic, Spain, Holland and the United States have been faithfully portrayed. The twelve scenarios from the 1993 version of the game have survived the migration, which encompass several major fleet engagements. Because the game system



downplays land masses, Nelson's battles at Copenhagen and the Nile have been omitted.

Victory is achieved by attaining certain geographic objectives (e.g., exit at least "x" number of ships in the southwest quadrant of the map) or calculating success in battle (sink or capture "x" guns more than the enemy). It should be pointed out that the player assumes the role of an admiral in charge of a fleet, not an individual ship's captain. As the fleet commander then, the player sidesteps various mundane chores such as ship handling. Instead, the player signals his or her fleet, attempting to maintain control over their forces in order to best defeat the enemy in detail.

these aspects, although scheduled for inclusion, cannot be fully commented upon in this discussion.

SimCan did indicate that they also plan to include "Stow-away," a bonus CD, with *Man of War*. Stowaway is a multimedia presentation of Stephen Biesty's *Cross Sections: Man-of-War*, which explains, in extraordinary detail, the intricacies associated with the typical "ship-o'-the-line." Everything is examined from sailing tactics to the appalling living conditions men had to endure. While it may not have an impact on gameplay, learning how and where the sailors "hot bunked," for instance, should provide some measure of understanding which undoubtedly will

Scenarios span the 1778 Battle at Ushant to Lissa, fought in 1811. Happily, the game editor permits players to create any scenario during the 1765-1815 timeframe. The most famous battles depicted includes Trafalgar (1805), the Saints (1782), and the Glorious First of June (1794). To learn the system, I recommend that players begin with either Lissa or San Domingo. These scenarios contain far fewer ships than some of the more monstrous scenarios such as Trafalgar.

IN HARM'S WAY

Before beginning play, players must first select their sailing doctrine. Throughout the battle, ships will adhere to whatever



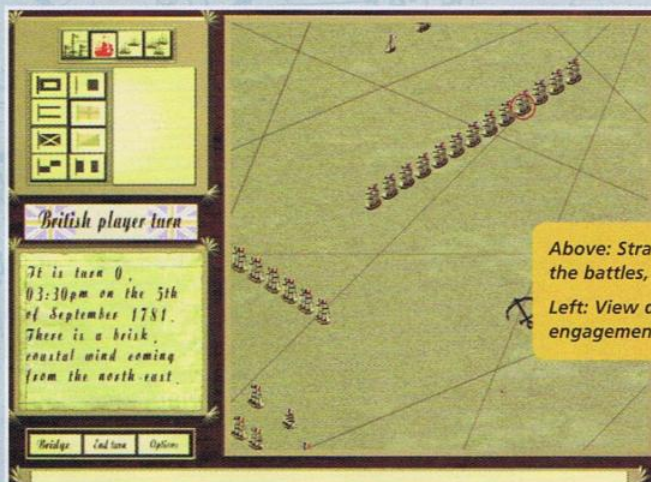
doctrine has been prescribed. Players, therefore, should carefully weigh the merits of each type of doctrine before weighing anchor. Doctrine affects any number of parameters, ranging from how close ships must sail to engage the enemy, to minimum and maximum fire ranges, choosing between full or reduced sail, etc. Choosing the proper doctrine is exceedingly important! Doctrine sets the overall tone of the battle, determining how and when a player's ships will engage the enemy. Fortunately, fighting doctrine may be applied to ships of a particular class or by sailing division.

Players should carefully analyze the mission objectives, deciding — at the earliest opportunity — how each ship can best assist in achieving victory. For instance, players may deem it nec-

be concerned with the welfare of their entire force instead of each individual warship.

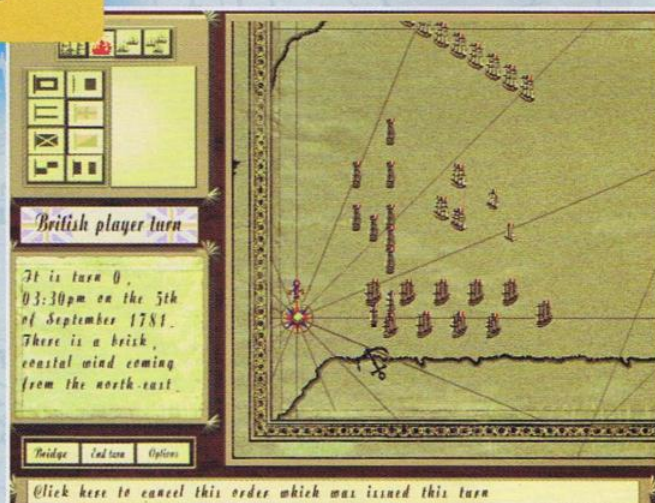
Of course, just because an order is issued does not mean that it will, in fact, be obeyed. In the more taxing fleet engagements, players will quickly discover how powerless they are to affect the rhythm of battle. Much like Lord Nelson, players will recognize that a direct, hands-on approach may not be the most prudent course of action. Similar to a football coach, players will have to place their faith in the training and seamanship of their subordinates, relying upon their superior seafaring and shiphandling characteristics to carry the day.

After the orders are run up the flagpole, the player's turn is concluded. A 3D phase ensues, which permits the player to tour the ship's deck to gain a visual sense of what is occurring. Entertaining to say the least, players are prevented from actually interacting with the game sequences or ship functions. In the preview version I worked from, both cannon fire and damage animations were not available but, according to the developers, the final version will be much more "energetic." One curious feature destined for inclusion will be to allow players a relatively unobstructed view of the action during the 3D phase. As players and historians may recall, naval combat during this period was marked by layer upon layer of thick, billowy smoke. (It would be some time before smokeless



Above: Strategic views of the battles, both active.

Left: View during engagement.



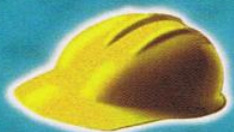
essary to order a screen of frigates to close with the enemy, tasking them to engage the enemy at long range, since frigates were never actually intended to replace the more powerful ships in the battle line. A frigate screen, by example, might continue to remain at full as opposed to reduced sail so that their advantage in speed and maneuverability might negate the awesome combat capabilities of the more powerful ships-of-the-line. Conversely, players may see fit to order the "heavies" to close the range with the enemy's vessels, opening fire at medium range or closer, reducing sail to minimize potential rigging damage, and so on.

After doctrine has been established, the player may next issue fleet orders. The player, like his historical counterpart, employs various flags to signal the other ships, although only twelve orders may be conducted during any four-minute turn. Potential orders include "follow", "engage closer", "make more sail", "conform to flag", "drop out of formation", "rally", "general pursuit", and "go to/bear". Flag orders are general in nature, making no mention for crews to load chain or cannister, when to fire, etc. Orders may be issued to the fleet, a division, a single vessel or the flagship. While a player may wish to micromanage each unit, the per-turn order limitation serves to maintain the illusion of acting as the fleet commander. A well-intentioned design constraint, players will eventually realize that they should

gunpowder would be developed.) Although ahistorical, the decision should prove a welcome relief for players concerned about the game modelling every aspect of age of sail warfare.

ONE IF BY LAND, TWO IF BY SEA

The latest version of *Man of War* seems determined to jumpstart an already tried-and-true system, employing much-improved graphics while providing better all-around situational awareness. Emphasizing grand tactics over the individual slugfests naval combat usually devolved into, *Man of War* petitions those aspects of battle many wargames are still dreaming of properly addressing. 



previews

The Gathering Storm

by Marc Dultz

A First Look at Activision's NetStorm



For many, the deluge of forthcoming real-time strategy combat games comes somewhat as a mixed blessing. While gamers certainly will have a lot to crow about in the coming months

— as they sample from amongst a veritable smorgasbord of new and improved gaming entrees — the expected onslaught may inevitably prove quite vexing for all concerned. In a rush to demonstrate their marketing savvy and programming prowess, more and more game publishers have tempted providence, succumbing to the very same fate which befell the photo-realistic adventure world presented in *Myst*, and the action-oriented, first-person perspective games typified by *DOOM*; viz., cloning.

Oftentimes ogling the true groundbreaking pioneers from the trenches, many publishers have leapt out of their traditional safe havens and lunged into the mine-laden, barbed-wire strewn stretches of gaming's no-man's land. Whether they be riding atop

and the waters have indeed been violently stirred, some have prudently battened down the hatches, mapping out a far more ingenious transit route to the safety of the shoreline beyond.

ICEBERG AHOY?

Although one might second-guess their name, newcomer Titanic Entertainment has taken stock of the situation, carefully scrutinizing the sea lanes before casting off on their maiden voyage. Under the tutelage of President Ken Demarest, the small but



Giant islands hovering in a tranquil sky.



tanks, steering steroid-injected robots, piloting starships or mounting fire-breathing dragons, virtually every software publisher seems poised to venture into the hotly contested real-time strategy battlefield. Unfortunately, this "jumping on-the-bandwagon" phenomenon, while working for some, usually serves to muddy the marketplace, confuse the consumer and, at best, represents a reactive rather than a proactive approach to next-generation game design. The once serene real-time gaming pool — long safeguarded and polarized by the *Warcraft* and *Command & Conquer* clique — has expanded dramatically, flooded by a sea of look-alike, me-too products. While some have already tread water in the now unrestricted swimming hole, and others have opted to follow a wait-and-see, ankle-dipping policy, a few have quietly begun tiptoeing over to the lifeboats in anticipation of foul seas ahead. Although the weather has worsened

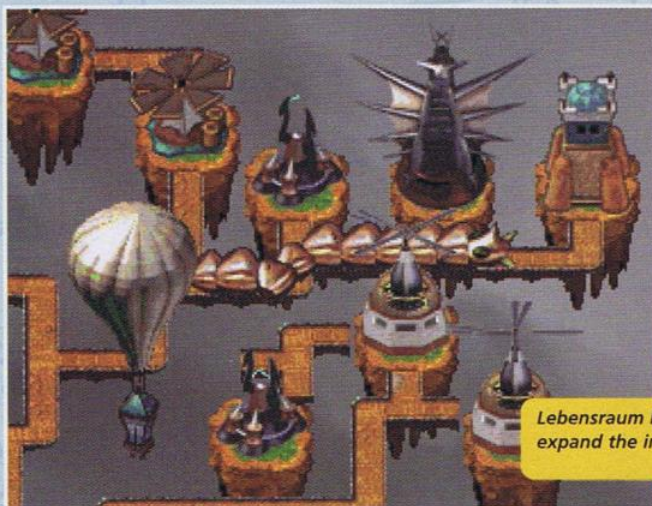
experienced crew at Titanic has examined virtually every title released or still languishing on the drawing board, taking note of the pros and cons associated with each. Recognizing that their trek will take them through the often perilous straits of real-time strategy warfare and multiplayer gaming, Titanic, working in conjunction with the veterans over at Activision, have already laid the keel for their first watertight design, aptly christened *NetStorm*.

NetStorm, for all intents and purposes, can best be defined as a distillation of various time-tested and recent pastimes; blending the adrenaline-rushing qualities of real-time strategy play, the logical, geometric world delineated by chess, the age-old children's game of rocks-paper-scissors, and the unique, multiplayer characteristics afforded by the ever-burgeoning Internet. A compilation of sorts, *NetStorm's* aim is to provide gamers with a unique yet persistent environment, that although evolving and never actually reaching a final, unequivocal conclusion, retains the key elements of infrastructure development, resource management, climactic pacing, and combat found in the more traditional real-time strategy games.

WHEN WORLDS COLLIDE

Even the look and feel of *NetStorm* is decidedly unique and appealing. As if uprooted from the world below, the central playing area resembles giant islands effortlessly hovering amidst a tranquil, cloud-inhabited sky. In fact, the game at first glance seems more at home in a mystical, role-playing atmosphere than it does the sometimes napalm-charred tapestry dictated by real-time combat.

Players initially control a single floating isle, developing whatever resources are encrusted across the landscape to develop their fragile infrastructure, create multi-faceted facilities and raise their legions of loyal, yet dormant soldiers. Since the island is excruciatingly finite in terms of space and resources, a sort of *lebensraum*,



or "living room" battle is naturally invoked in order to obtain new mineral deposits, expand the infrastructure, and amass what can best be termed as a fortified floating archipelago nestled in the sky.

When all of the players are deemed ready, the player-controlled home islands descend to the challenge area. Each home island is positioned around the points of a compass, circumnavigating an undeveloped parcel of mineral-rich land. To conquer the fertile territory, players must quickly erect bridges from their home island to it, stake their claim by emplacing structures and units on it, fend off local attacks, destroy the enemy's advance outposts, then deploy and protect a "transmographier" to secure victory. Bear in mind that while all this is going on the enemy, advancing across the embattled island or interconnected labyrinth of bridges, can invade your own home island, destroying everything you've so diligently tried to produce. Have no fear, though: Even if your home island is carted away as part of the spoils of war, its loss doesn't affect any of the other remaining home islands safely tucked away within your onlooking archipelago.

While the long-term objective rests with conquering each hotly-contested land, players will also receive "storm power" — the be-all and end-all force which permits new unit construction and provides power — when they destroy or seize enemy structures and units. Players can form strategic alliances and share resources with one another, communicate by sending open or secret missives back and forth, launch covert spy missions, attempt to gain control over enemy structures, and generally do whatever is necessary to snatch victory from the ever-widening jaws of defeat. Certain structures rise or lessen in stature with the ascendancy of rain, wind or thunder, the three principal elemental powers portrayed in the game. So although your forces may be poised to take full advantage of one condition, a sudden shift in the forces of nature can throw everything out of kilter.

PAWN TO ROOK FOUR...CHECKMATE!

As is the case with any truly successful game design, *NetStorm* is relatively easy to learn, novel enough to appreciate, significant enough to warrant repeated play, and certainly challenging enough to master. For instance, while unit location is typically a significant component of most real-time strategy fare, a unit's ultimate placement assumes critical proportions in *NetStorm*. Like chess, certain units have curious restrictions imposed upon them, permitting them to fire only along the vertical or diagonal axis or within specified, predetermined ranges. As a result, mightier units can be whacked at the knees, so to speak, by much weaker units strategically placed just outside the more powerful unit's effective firing lanes. Highly evocative of the rocks-paper-scissors children's game other developers have experimented with, this tried-and-true formula lends itself well to the overall framework espoused by *NetStorm*.

Players can easily and erroneously be lulled into complacency, thinking their island fortress safe from any aggressor, of any size and from any quarter. Leaders may think their island fortress unassailable, having fortified one or more quadrants of their island from outside attack. For instance, while the player may elect to defend his northern frontiers, he may be horrified to learn that an enemy spymaster may have craftily upset his carefully-laid plans. The spymaster can juxtapose another island's initial positioning, seating him, for example, in the northeast chair as opposed to the southwest. The unknowing victim must



then quickly redouble his efforts to defend his southern approaches while simultaneously laying new plans for the conquest of the virgin lands beyond.

Not unlike any translation process, the children's game does have inherent limitations, especially when several dozen playing pieces are being shunted about the mapboard for best possible employment. To facilitate play, then, *NetStorm* contains a fully interactive tutorial and online help file which describes and differentiates between the various unit capabilities (see our sidebar for unit information). Moreover, players needn't worry about rubber banding their units for maneuvering purposes, or ordering each individual unit to attack installations or defend outposts. Once emplaced, units will automatically begin to seek out and engage enemy units within range, thereby downplaying any ensuing distractions typically caused by excessive micro-management.

Terrain, too, plays an integral role in the overall scheme of things. Trees, hills, and even the island's boundaries can cause chokepoints for advancing or retreating units, restrict the place-

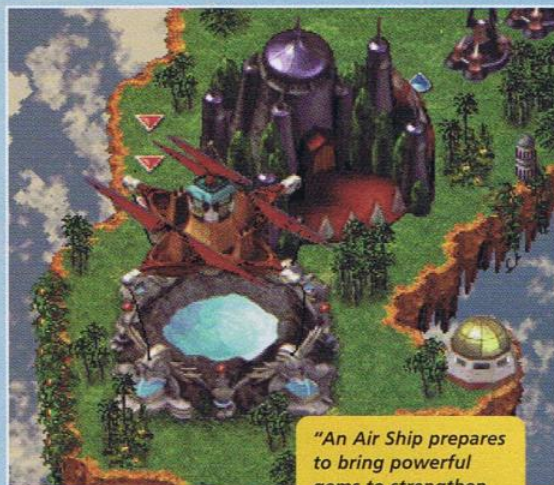
ment of certain structures, hinder unit construction and deployment and, of course, block the line of fire of various direct fire weapons. Furthermore, each structure sports a logistical tail. If storm power can not be traced to it then the structure may wither on the vine, oblivious to any would-be intruders or assaults.

HEAD STUCK IN THE CLOUDS?

If you're indeed fortunate to never suffer from claustrophobia or acrophobia and can deal with the sudden shifts in the weather, you should find some measure of comfort with the dazzling array of structures and unit types portrayed. Here's a short list of some of the pieces included:

UNIT	EFFECT
	Disc Thrower A short-range device, the Thrower hurls flaming solar missiles in virtually any direction.
	Jacob's Ladder Intended to harness the power of Thunder and Lightning, the Ladder is necessary to build certain unique units.
	Stone Tower Blocks direct fire attacks, thereby protecting pieces placed immediately behind it.
	Trumps Embedded throughout the islands, these power-ups — which include saboteurs, treason, bombs and energy drain — may assist your units or harm the enemy trumps located within a prescribed range.
	Acid Fence Any emplacement snared in an activated fence is dissolved into particles and eventually gravitates towards the opposing poles.
	Cannon A simple but powerful weapon which can inflict major damage at units placed within its restricted firing lanes.
	Bolf Half bull, half wolf, the Bolf roams the island, stomping on unsuspecting units and structures.
	Escher Flume Powered by the Rain element, the Flume allows you to create various, specialized units.
	Solar Collector Collects and converts solar energy which is then used to assist in the construction of new structures.

Although an enjoyable stand-alone product in and of itself, *NetStorm*'s inner beauty surfaces in its much-touted multiplayer mode. Players will be able to hook up with one another through Titanic's website, playing for as long as they like free of any extensive latency issues or per-hour charges. Titanic will also make available a robust player-matching system, avoiding any likelihood that novices will



be paired up with the more proficient players lurking online. With time and experience, players will be awarded a series of progressively more difficult to obtain, and therefore highly-cherished, victory badges. Over 40 types strong, each one denotes how successful the player has been at expanding and protecting his culture, while acquiring new territories and defeating an ever-growing list of seething opponents.

LOOK TO THE SKIES FOR A WARNING

NetStorm represents a fresh approach to the staid real-time gaming genre. With the Internet-based network option, players will be able to put to good use what acumen they attain in standalone play, intermixing a fair degree of reasoning skills, diplomacy and cunning to achieve the best possible results. By integrating a persistent and appealing universe with an evolving and compelling gaming environment, *NetStorm* seems poised to redefine and reinvigorate both real-time and network-based gaming for some time to come.

Bon voyage, Titanic! 

"The information gathered by the spy in the upper right corner will spell doom for the towers in this picture."



YOU'RE NOT IN THE GAME...

Drag your computer gaming out of the den. Trade your office chair for a couch. Invite your friends over. Get comfortable. Kick major booty.

The Gateway Destination™ Big Screen PC/TV lets you and a few of your closest wingmen smash the alien horde, cruise the Internet or tune into your favorite television shows.

Our Destination 31-inch VGA monitor delivers in-your-face action to the entire group. The wireless keyboard and Field Mouse remote

let you control the action from up to 10 feet away from the monitor while you slake your gaming thirst or sail around the Internet. Add optional speakers or tie in your existing stereo's audio and prepare to be engulfed.

The heart of our Destination system is a powerful PC, now available with the rockin' Intel Pentium® II processor.

With Gateway, you take control of your Destination Big Screen PC/TV mothership before it's even built by deciding what goes into the system.

So, you want the Destination system in your face, digital cowboy? Call Gateway today and get into the game.

...UNLESS
IT'S IN
YOUR

FACE!



D6-233

- Intel® 233MHz Pentium® II Processor with 512K Cache
- 32MB EDO DRAM
- Destination 31" VGA Color Monitor
- STB 2MB VRAM Graphics Accelerator with Cable-Ready TV Tuner
- 6.4GB 10ms EIDE Hard Drive
- 12X min/16X max CD-ROM Drive
- 3.5" Diskette Drive
- Ensoniq® Wavetable Audio
- ▶ harman/kardon® High-Fidelity Sound System
- TelePath® Modem for Windows with x2™ Technology*
- 7-Bay Charcoal-Colored PC Case
- Wireless Keyboard w/ Integrated EZ Pad™ Pointing Device
- Wireless Field Mouse® Remote
- Four-Channel RF Receiver
- Microsoft® Windows® 95
- Destination Software Collection
- MMX™ Technology-Enhanced Software Bundle
- Gateway Gold™ Service and Support* for Big Screen PC/TVs

\$3999

*Maximum data transfer rate dependent on certain variables including particular modems with which you are communicating, telephone lines, communications software and communications protocols.

*The Destination 31" VGA monitor is covered by a one-year limited warranty. Call or write for a free copy.



"You've got a friend in the business."™

8 8 8 - 8 8 8 - 0 2 8 7

www.destination.com

610 Gateway Drive • N. Sioux City, S.D. 57049-2000
Phone 605-232-2000 • Fax 605-232-2023



previews

Death from Above

by Steve Honeywell

A First Look at Extreme Assault



There's something about a helicopter simulation that makes a dedicated computer gamer smile from ear to ear. Perhaps it's the ability to unleash a torrential wave of ordnance upon hapless enemy troops. Per-

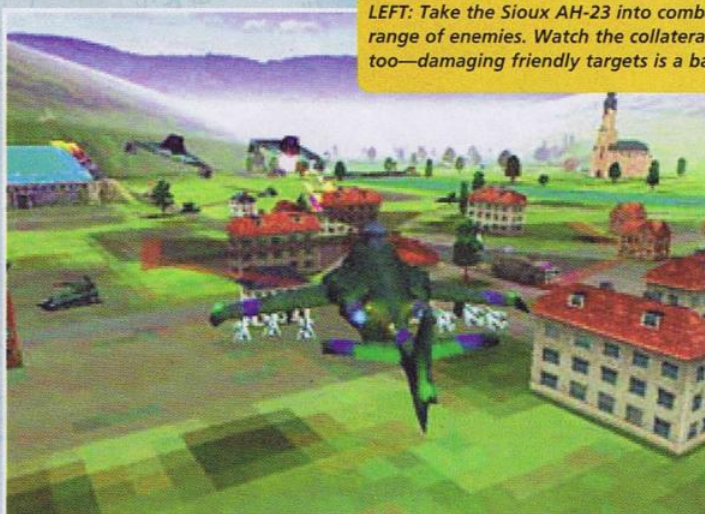
haps it's the chance to get behind the controls of one of the most awesome weapon systems ever to grace the field of battle. More than likely, the real reason is probably an amalgamation of these as well as an important third element: control. The ability to hover, turn on a dime and shoot vertically into the sky, the helicopter — real or simulated — reigns supreme over the battlefield.

In like fashion, most gamers relish the idea of slithering into modern tanks. Tanks represent a keen military trade-off, balancing mobility, armored protection and firepower in a lethal combination of death and destruction. Able to smash their way past anything lying in their path, a tank may represent the ultimate irresistible force yet to be conceived.

So what would the typical gamer — hungering for the destruction wrought by combat

RIGHT: Not all of the enemies in *Extreme Assault* are of the garden variety battle helicopter.

LEFT: Take the Sioux AH-23 into combat against a range of enemies. Watch the collateral damage, too—damaging friendly targets is a bad idea.



helicopters and tanks — think of a game that allowed them to wreak mayhem in the air or on the ground? *Extreme Assault*, from Blue Byte Software, flies headlong in the face of adversity, piercing the tumultuous world of combat simulations.

TERMINATE WITH EXTREME PREJUDICE

While *Extreme Assault* includes a good helicopter flight engine, an equally respectable tank simulator and a lot of action, it differs from the standard sim on one significant point: plot. Instead

of using the most sought after military hardware currently available, the player heads off into battle with the latest near-future military equipment. And with good reason; the player must stare down a horde of invading aliens determined to take over the



Earth, then terraform our beloved world to accommodate their own species. Naturally, these alterations will wipe out all life as we know it.

Extreme Assault is mission/level-based. The player may be charged with rescuing kidnapped scientists, destroy incoming alien forces, or demolish the huge atmospheric plants being created by the extraterrestrials. Of course, the aliens will be doing everything in their unearthly power to prevent the player from accomplishing their mission. No matter the objective, each mission requires that the player annihilate dozens of ravaging aliens on the ground and in the air.

The helicopter is well-equipped for the task. Armed with laser cannons, heat-seeking missiles and smart bombs, the Sioux AH-23 is a formidable weapons platform. On some occasions, it will be necessary to step out of the helicopter and slide into the T1, the latest generation of main battle tanks. Like the AH-23, the T1 is a gunslinger, able to waste virtually anything before it. Players will have to employ both vehicles during the course of play, although the AH-23 is apparently the weapon of choice for most outdoor missions. To tip the scales back, combat will oftentimes be fought underground where, sensibly enough, the player can use the T1 to best advantage.

While *Extreme Assault* utilizes two sophisticated simulation-like engines, the game places heavy emphasis on action. In fact, dedicated simulation buffs may be distressed by the presence of



LEFT: The missions in *Extreme Assault* will take the player all over the world, including a visit or two onboard a friendly carrier.

action-oriented objects such as power-ups, bonuses and hidden areas sprinkled liberally throughout the map. And sim fans may find fault with the very last mission of the game, since they'll be expected to battle it out with an incredibly powerful final opponent.

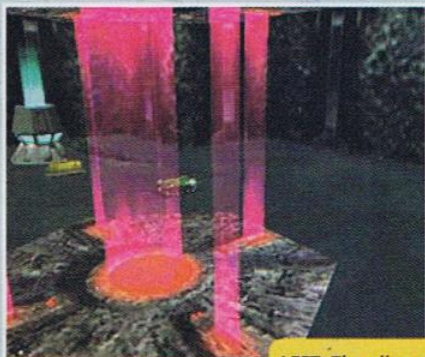
MISSION POSSIBLE

The 50 missions tend to be short, if intense slugfests that require the player invest a great deal of energy and patience to triumph. And missions are quite varied, sometimes tasking the player to explore underground caves, manmade tunnels and even the boiling chambers of active volcanoes.

The cockpit-oriented point-of-view automatically adjusts in accordance with the sequence of events occurring on-screen or the players actions. According to Blue Byte, this curious aspect of play "simulat[es] realistic head movements in turns, climbs and descents." This strange effect took some getting used to, even

for a veteran game, like myself.

Each of the two vehicle's weapons systems can be improved and even re-energized using the power-ups scattered about the battlefield. In fact, the three different



LEFT: The alien atmosphere facilities pose a terrible threat to life on Earth.

RIGHT: Combat gets intense, no matter what theater of battle you happen to be involved in.

weapons systems on either craft contain a total of nine different levels of progressing capability. The implications are obvious. *Extreme Assault* includes upwards of 20 types of aliens to battle against, each one adhering to drastically different battle tactics and strategies.

The game exhibits some amazing and elegant graphics which, quite pleasantly, doesn't require that the player own a scorching 3-D accelerator card to fully

enjoy. Players can draw a bead on virtually any type of terrain — supposedly when they're not dodging the enemy's fire — blowing up the countryside with free-spirited abandon. Trees and buildings burst into flames, plumes of smoking rising majestically into the forlorn sky.

Mission briefings happen in real-time from a 3D vantage point, using the battlefield as a logical backdrop. Visual effects include, for starters, a variety of holograms and laser barriers. Happily, these and other striking effects successfully migrate to the lo-res mode also included in the game. Therefore, players looking to enhance the speed of play can degrade the graphic quality without losing much in the way of aesthetics. The hi-res graphics have to be seen to be believed; *Extreme Assault* is easily one of the attractive games undergoing development. Remarkably, even the lo-



res mode delivers some of the best in-game graphics ever to adorn an action title.

Those gamers looking for a little more than the standard shoot-'em-up will find comfort learning that *Extreme Assault* is being conceived with multi-player aspects in mind. IPX and NETX LANs will be supported, and there is considerable talk of creating an area on some of the more popular multiplayer gaming networks to foster additional external interest. Both cooperative and competitive missions will also be available, and a number of specially constructed scenarios — designed specifically for multiplayer gaming — are also being planned.

THE NAME OF THE GAME

The long and the short of it is that Blue Byte expects *Extreme Assault* to live up to its name in every possible respect. The product is indeed *extreme*; gameplay is vicious, the action constant and unforgiving. It's also an *assault* on the senses; its high-powered graphics among the best to-date.

If you believe that realism is the end-all of computer gaming, then you might be advised to look elsewhere. In the meantime, for those of you not harboring any hangups over premise or promise, *Extreme Assault* seems to have it all. In fact, when the dust settles, this may very well be Blue Byte's long overdue stake to fortune and fame. **COC**



From the Battlefield

BY ROBERT MAYER



A wargamer of decided repute since 1973, Bob transitioned to the personal computer in the early eighties. He has written about computer games for the last few years for several highly regarded publications. He's currently teaching history at his alma mater, and in the past has been involved in defense contracting, intelligence, computer operations, and, yes, even concrete pouring. Email: rmayer@atl.mindspring.com, or at 72020,706 on CompuServe.

COMPUTER GAMING HAS COME A LONG WAY since I first started pushing pixels around several years ago. One facet that has remained constant, however, is the thrill of encountering, experiencing and perhaps mastering a solid war or strategy game. Each month, I'll be using this column to talk about what is happening in the world of war and strategy computer gaming. So what can you expect in this space in future issues? Well, plenty, I hope. In future columns I'll be taking up issues such as realism in wargames, real-time versus turn-based games, the future of multiplayer war and strategy games, the problems of converting boardgames to the computer, and a host of other issues. Naturally, I welcome suggestions, comments, and diatribes, which you can send to me at the email addresses listed above or courtesy of this magazine. In addition, watch this column for the latest information on forthcoming strategy and war games; with any luck, I'll be able to bring you previews, prognostications, and general commentary on important games and the state of computer strategy gaming in general.

There's going to be a lot happening this year on all fronts of computer gaming, and strategy and war should be a hot area. In addition to the continuing flow of real-time strategy games in the tradition of *Command & Conquer*, we should also see some traditional wargames, some interesting boardgame conversions, and a collection of innovative new strategy titles from a variety of publishers. I'll try to keep you up to date on what's coming down the pike, as well as providing food for thought on what's already arrived. For this first column, though, I thought I'd take a look back in time, at some of my favorite games of all time. This should give you a good idea of where I'm coming from, and what you can expect in the future.

Though I had been fooling around with games on computers for several years, I didn't become a "game addict" until around 1984, when I bought an Atari 800 (followed soon thereafter by a Commodore 64). The first game I ever bought for the Atari, my very first color computer, was SSI's *Kampfgruppe*. More than any other game, it was *Kampfgruppe* that hooked me. Sure, the AI was as dumb as a post. Sure, the graphics were rather spartan,

even for the time. But man, what a game. I spent hours planning defenses, mounting assaults, and yes,

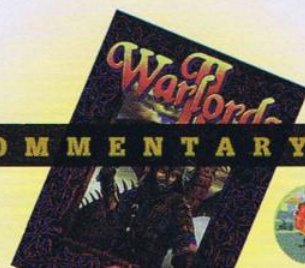
waiting for the pathetic floppy drive to load the data. *Kampfgruppe*, for all its flaws, was so much like the boardgames I had been playing since the 1970s. Finding boardgame opponents had become an increasing difficult problem and *Kampfgruppe* filled that void. SSI eventually produced several sequels, including one dealing with modern warfare (*Mechbrigade*). The original, though, was still the best, setting the standard for tactical games in the years to come.

Another game that set new standards was Chris Crawford's 1983 *Balance of Power*, the first — and for a while the only — game I bought for my new Amiga 1000. Though I never fully agreed with Crawford's model of modern diplomacy, *Balance of Power* was the game that convinced me computer gaming had come of age. Sophisticated, attractive, slick, and engrossing — this was a great way to show off computer entertainment. It wasn't until the original *Harpoon* debuted that I found another game that made me say, "this is worth buying a machine to play." Indeed, Three-Sixty Pacific's *Harpoon*, though perhaps the buggiest piece of functioning software ever released for the PC, was such a *tour de force* that I endured endless updates, crashes and glitches, simply to cram in just one more alpha strike on the Kola Peninsula, or maneuver that last sub into position to sink a Nimitz-class carrier. *Harpoon* ultimately proved that the PC — beyond acting as a flight simulator — could be an excellent platform for serious military games and traditional, hexagon map-board-based games. Though a flawed masterpiece, it also introduced hardcore wargamers to the joys of continuous time, as opposed to turn-based play.

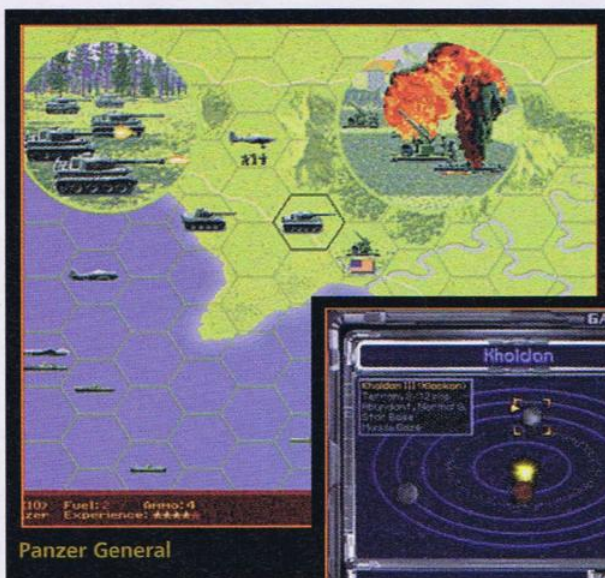
Another member of my illustrious honor roll is MicroProse's *Red Storm Rising* (*RSR*). *RSR* was an interesting game, which overcame lackluster graphics and a tie-in with a popular author (too often a death sentence for games) to deliver a modern submarine wargame which in my mind has yet to be equaled, though Jane's and Origin are planning to do something about that in 1997 (ed: see our cover story). Like *M-1 Tank Platoon*, *RSR* showcased MicroProse at its best, taking complex military subjects and presenting them in an accessible and entertaining way, satisfying long-time wargamers and many newcomers to computer gaming as well. Both games, of course, featured excellent printed manuals; thick tomes loaded with technical detail which was often actually relevant to game play. In an era when computer wargames were largely confined to SSI's line of what were essentially boardgame conversions, MicroProse's combination of strategy and simulation (carried over into such flight sims as *F-19 Stealth Fighter* as well) served as a fateful reminder that computers were a very flexible medium.

In more recent years, Atomic Games, first with Three-Sixty Pacific and then with Avalon Hill, revitalized traditional wargames with its *V for Victory* and *World at War* products. *Utah Beach* was perhaps the game that revitalized hex-based wargames, while *Market Garden* convinced many gamers of the

WAR GAMING COMMENTARY



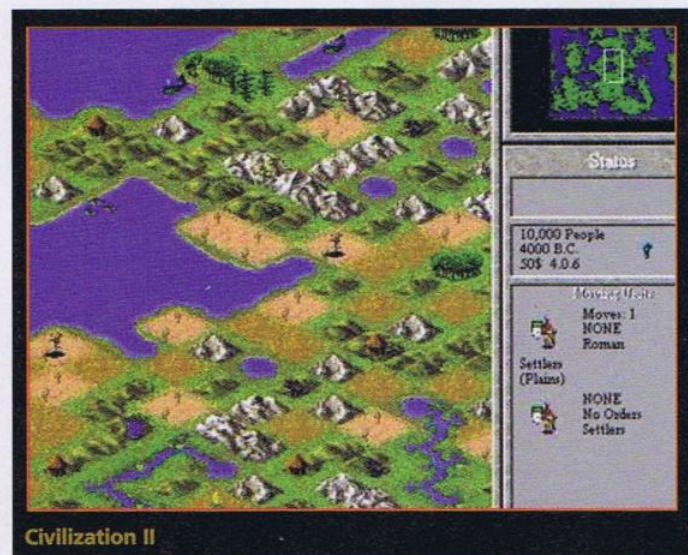
added benefit of playing by e-mail. *Operation Crusader*, with its enhanced command and control, better AI, and freewheeling action demonstrated that innovation wasn't dead despite the *Word at War* series' conventional approach to wargames. More recently, Atomic (now with the publishing clout of Microsoft) produced *Close Combat*, a game that introduced grognards to real-time wargaming by combining detail and accuracy with fast-paced tactical action. Even today, with the *V for Victory/World at War* games showing their age, Atomic's products are among the very few operational-level wargames available for the computer.



Panzer General

In the realm of tactical wargames, perhaps my favorites have emanated from HPS Simulations, which produces *Tigers on the Prowl* and *Panthers in the Shadows*, two of the most detailed and realistic tactical games ever devised for the computer or, for that matter, any other medium. These difficult, graphically primitive WWII games convincingly demonstrate that computer wargames can be every bit as good as their paper and cardboard counterparts. In some respects — notably line-of-sight and hidden units — these games are far superior to most boardgames. Of course, SSI's *Steel Panthers* has to be included as one of the games that helped awaken gamers to the joys of tank-busting. Far more popular in terms of unit sales than any of HPS' games, *Steel Panthers* joined *Panzer General* as SSI's wargames for the 1990s. Both games provided enough military detail to satisfy most traditionalists, yet offered the glitz and glamour that the average gamer expected from the major publishers.

Of course, wargames haven't been the only things that I've played. There are many strategy games that have won valuable real estate space on my hard drive and a special place in my heart. SSG's 1993 *Warlords II* was one of those games that merged all of the best aspects of strategy gaming into a product that, in the



Civilization II

end, stood as something more than the sum of its parts. *Civilization*, and its 1996 follow-up *Civilization II* remain perhaps the best strategy games every made; MicroProse, Sid Meir and Brian Reynolds made one hell of a team, and some hellaciously good games. The original *Master of Orion* was the best interstellar



Master of Orion II

strategy game of its time. *Master of Magic*, though seriously flawed at least until the release of the third patch, extended the strategy game further, embarking into the mystical realms of magic and fantasy. *X-COM*, an English import that MicroProse was smart enough to unleash on this side of the Atlantic, showed how a detailed tactical combat system could capture an audience far broader than that of typical wargames. (Omnitrend's *Breach* series, although attempting to accomplish this very same feat, ended up with interesting but far less successful results)

And what do I play these days? *Civilization II*, of course, as well as any of the HPS games. New stuff like Interplay's *M.A.X.* occupy my time, and — don't tell anyone — role-playing and even action games, too. But it's strategy and wargames that I've always loved, and that's what I'll be commenting about here. As you can see from my brief list of favorites, I like detail, good manuals, replay value, and most importantly games that respect the player. One point true of virtually every game already mentioned here is that they took gaming seriously. There have always been publishers who have seen computer gaming as frivolous and who have acted accordingly, producing disk after disk of games that insult the intelligence and strain the credulity of the gaming public. Most gamers are typically well-educated, adult males; while the demographics of age and gender are finally loosening up a bit as capable computers come ever closer to being household appliances, gamers are still generally well educated, intelligent folks. The great games of the past, as well as those of the present and future, will recognize the intelligence of their audience. Detail and complexity, not necessarily statistical models and uncompromising unit capabilities, are the hallmarks of good strategy games. Publishers that understand this, recognizing that strategy gamers are smart folks in search of a challenging and rewarding experience, will be able to succeed in the increasingly crowded strategy game market. (B)

The Control Tower

BY ALAN FUSCO



Alan's been tearing into computer game boxes about as long as there have been computers. Beginning with the humble IBM PCJR in 1983, his first game, naturally enough, was Microsoft Flight Simulator. Piloting Cessnas for days on end, his new-found high-tech passion quickly got the best of him. Like virtually every other virtual pilot, he was forced to upgrade his equipment to keep up with the hobby. In the mid 80's he "kept up"

by starting a computer consulting company, eventually watching it mature into a full-blown 9-to-5 job. Leaving behind his position as an assistant professor at a major state University, he has, for several years now, devoted himself to consulting and computer programming, writing and computer gaming, and not necessarily in that order.

WRITING A MONTHLY COLUMN ON SIMULATIONS is an exciting yet daunting task. It's exciting because simulators are a passion of mine, daunting because I would like this column to take a different direction than similar columns you've no doubt seen elsewhere. Essentially, I envision this column as tackling issues concerning simulations, as well as serving as a sounding board for some of your interests. To this end I would like to encourage you to e-mail me to discuss your ideas and concerns. I can't promise you that your e-mail will appear in print, but I can assure you that I will read each and every one, share with our audience the most poignant and give credit where credit is due. To this end, I would like to begin discussing two interrelated issues. The first is my definition of a simulation, so we are all "on the same page", so to speak. The second is how much realism does a game require in order for it to be labeled a "simulation".

In my opinion, a game can be labeled a "simulation" if it passes a simple two-part test. Essentially, a simulation must attempt to simulate some real event (we'll define what "real" means later in this column). The operative words here are "attempt" and "real". To put it bluntly, the designers and programmers must have made an honest attempt to model an actual event, such as auto racing or dive bombing an aircraft carrier, using actual data and performance characteristics. I say attempt because I realize that it may not be possible, or even desirable, to make a simulation that is entirely 100% accurate.

Using these guidelines then as a reference point, in my opin-

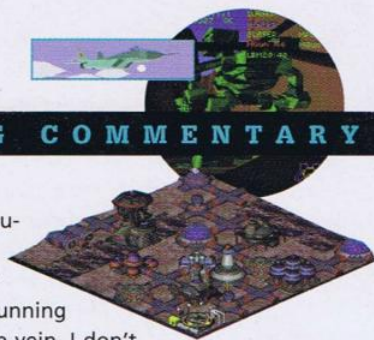
SIMULATION GAMING COMMENTARY

ion *MechWarrior II* is not a simulation. I don't know about you, but I haven't seen any multi-story, multi-ton mechs running about where I live! In the same vein, I don't consider most of the outer space combat games out there to be simulations, either. At the present time, interstellar combat doesn't exist. To my knowledge only two outer space games have actually tried to model real world physics in outer space: Microsoft *Space Simulator* and Microprose's *Mantis*. Microsoft *Space Simulator* was an excellent, if unpopular (at least judging from the amount of traffic on the online services) simulator. *Mantis* was, for all practical purposes, unplayable. Both were relatively unpopular because most people haven't a meaningful understanding regarding the physics and dynamics of interstellar travel. In the end, both of these games serve to demonstrate why hard data and performance flaws, when taken to the extreme, can diminish a game's playability.

Of the two titles, *Microsoft Space Simulator* suffered less in the realm of playability. Possessing fast reflexes wasn't an issue. However, the gamer needed to be willing and able to spend a great deal of time boning up on the physics of space flight. Of course, a background in mathematical problem solving and a calculator also came in handy to derive the most use from the game. On the flip side, players often lament the poor way in which reality is handled in games, only to complain when they finally are rewarded with a game like *Mantis*!

Secondly, I believe a simulation should educate the user about certain real world events that most players will, in all probability, never experience. In that sense, a simulation can succeed or fail, as the case may be, along several different avenues. For instance, *Microsoft Flight Simulator* is the undisputed king of civilian flight simulators. The flight model has improved with each release and there is no question that the game can teach the user, both the novice and tyro, virtually every aspect of civilian flight. The game also succeeds in modeling both visual and instrument navigation techniques. However, when we examine the merits of the design outside of these areas, the game comes up short. *Microsoft Flight Simulator* fails to teach the user anything about preflight checks, filing and adhering to flight plans, ATC communications, and the navigational problems associated with restricted air spaces.

In the world of combat flight simulations, no one has come close to Spectrum Holobyte's *Falcon 3*. Oh sure, several have exceeded the flight model and graphics found in *Falcon 3*, but when you look at the entire package presented, the flight model was only a hint of the underlying system. For instance, *Falcon 3* taught the player about teamwork. Wingmen had to be controlled, complete with squadron names, ranks, pictures and various other attributes. As a result, the player learned to care about his or her squadron, coping with crew loss and reveling in pilot promotions. This overtly affected the player, making them much more careful when it came to issuing orders or choosing appropriate combat tactics. In addition, *Falcon 3* made the player aware about resource and squadron management while underscoring the importance of combined arms combat. I'm always amazed



that software publishers are still fixated on flight dynamics, ignoring the overall picture as presented in *Falcon 3*. In my opinion, *Falcon 3* still represents the ultimate flight simulation, because it truly attempts to model a real world environment from every conceivable angle.

A simulation can cross over into many genres. A wargame can be considered a simulation if it attempts to teach the player various tactical and strategic issues associated with a particular battle.



Likewise, a simulation can also encompass various sporting events, strategy games and even role-playing quests. The only genre which falls outside of the simulation classification are arcade games. Again, the key here is that the game must attempt to simulate a real event and teach the user something about those events. This would, of course, eliminate fantasy role-playing and strategy games, but what exactly is a "real event?" What do we do with the various F-22 flight simulators that have been released or potentially near-term scenarios as depicted in games like *Outpost*? Let's examine each game.

The F-22 simulator represents a category of "on the drawing board" or "in prototype" aircraft. Since a production craft usually differs from its prototype, we can make the assertion that a "real" F-22 doesn't exist, therefore all F-22 flight simulators are not true simulators. (Editor: the maiden flight of the first F-22 is scheduled sometime in May of this year.) Do I really want to say this? Certainly not. Why? In a sense, the F-22 is real. It has a design specification and, from that design, various aircraft performance data can be estimated. In addition, the specifications include such things as combat role(s), avionics and weapons loadouts. Thus an estimate of what a production-model F-22 will look like (graphical representation), how it will perform (flight dynamics), what instruments it will carry (avionics), and what it will be used for (mission parameters and weapons loadouts) can be modeled. Is this "real"? I think so. Sure, the actual F-22 may have differing characteristics, but at this point in time, if a game developer makes an honest attempt to model design specification data, then I would classify such a game as a simulation. "Real" can then include data obtained from serious prototype-based design specifications, even if the actual object has not yet reached the production phase. Can we expand the definition

of "real event" even further?

Sierra's *Outpost* represents another interesting category that we may want to include in our definition of "real." Obviously, space colonies do not exist, but there is a body of serious research already conducted which details what types of problems and hardships may be involved with the colonization of a planet or a moon. While admittedly still somewhat of a gray subject matter, I would nevertheless classify *Outpost* as a simulator, because by using hard physical data it attempted to teach the player the problems associated with colonization efforts on environmentally hostile planets. By the way, I believe that this is one reason why *Outpost* received such criticism with the online community. The game evolved into a true simulation rather than a game. When additional game playing features were dropped in the first release, players had a difficult time getting past their disappointment to appreciate the underlying simulation aspects. As a person who has spent most of his life as a scientist, I really liked the way *Outpost* modeled scientific and social research. Sure, Sierra took liberties using published research as a springboard for their own ideas, but this was created to help facilitate playability. So, in what sense is the *Outpost* game category modeling something "real?" Essentially, it models the results of serious research data, taking into



account the interplay of various sciences such as technology, physics, psychology.

In summary then, a simulation must attempt to simulate some real event and educate the user about those real events. A real event is defined as an existing item, specifically a car, ship, plane, etc., a conjectural piece of equipment based on a serious design and current technology — such as the F-22 or Superfighter planned for the next century — or a piece of hardware derived from serious scientific research — such as a lunar colony, Mars landing simulation, or an undersea city simulator. Games falling outside these parameters, such as *Wing Commander*, *MechWarrior* or *Star Trek*, fail to simulate anything real.

Next month we will continue this discussion, tackling the age-old question of how much simulation needs to be poured into a game box in order for it to be labeled "simulation." In the meantime let me know your thoughts or concerns by contacting me at 73227.3536@compuserve.com or Afusco@aol.com. (CPC)

Born to be Wild

BY SAMUEL BROWN BAKER, II



Sam, as he so eloquently puts it, "has always loved games; games of all types and when the PC came along I bought those first spindly little pieces of code and hacked them and started writing about them. I've been playing PC games and writing about them on a continuous basis for one publication or another ever since." We think you'll agree that he knows what he's talking about.

WHAT IS THIS COLUMN ABOUT? Well, other than serving as a platform for the pontificating of a raving loony (my therapist says I need the release <g>), these monthly delusional diatribes may serve as springboard for thought and discussion about action games with readers and the game companies we so love and sometimes hate. Whatever beasts are to be slayed, whatever evildoers to be punished, whatever games to be hacked, all is grist for the mill (okay, enough already, time to kill things).

The eternal questions are always with us: Why are we here? Why is the sky blue? Why ask why? And who is this Bud person, anyway? Ranking in this pantheon of imponderables is perhaps the greatest question of them all. . . . Why fix something that ain't broke?

When a company comes out with a dog, you can usually figure out why. And let's face it, we know who produces the dogs and rip-offs. Normally we only get sandbagged when we're so in love with a concept that we can't believe it could be done badly. Then, of course, there's the formerly reliable company that releases a bow-wow due to reasons that may be beyond their control.

Case in point: How does the very same company which produces great games like *Mechwarrior*, *Mechwarrior 2* and *Ghost Bear's Legacy* then go and churn out a peculiarity like *Mechwarrior 2: Mercenaries*? In the first two games, we were limited in our storyline and mission selection, it's true, but we could easily design new mechs and the game didn't crash all that much. I believe we were all expecting a truly classic game when *Mercenaries* came out. After all, these are the same people who created the classic *Mechwarrior* in the first place, a game that remained on my hard drive long after it rolled off the assembly line.

What did we get? Well, we got a game with bugs, where salvage is independent of mission results, where your career ends

ACTION GAMING COMMENTARY

when the final mission is over, and a mech design system that makes it nearly impossible to keep track of what you're doing. Who thought this was a good idea?

What about *Privateer 2*? Fun game, I quickly became immersed in the story and love playing it. Or at least I did until I accumulated a certain amount of cash and all of a sudden these really hot pirates show up every fourth jump or so and fry my ship unless I use missiles on them. Missiles I was saving for my contracts. Not to mention that you can't save except on a space station or planet, and there is only one difficulty setting which ramps up dramatically so those missions 14 jumps away from the nearest Taco Bell (THE source for fast-food sodas) become a real pain and not worth taking.

How about *Quake*? NO MAP?!?!? We've been told that it was less realistic and took us out of the story too much to put a map in. Riiiiiiiiight. I suppose that the hodgepodge of monsters that look like they came from several different horror films wasn't going to make us blink, either.

Last, but not least, *Diablo*. *Diablo* is, oh, about half action and half RPG. If you took the *Hexen* concept a bit further, you might've ended up here. Wonderful, amazing game. I can't stop playing it (heck, with Win95 I could be playing it while I'm writing this, who'd know? Hahahaha!). Blizzard listened to the playtesters and the unwashed masses, changing the durability of weapons and repair costs to something reasonable. . . but they tied multiplayer characters into the registry, and made it impossible to back them up or move to another machine. To compound this problem, there are frequent crashes on the 'Net, so that the many hours one has to play to build up a good character with all those really nifty items are wasted, leaving characters with no items if they're lucky, and players with no characters and maybe no Windows if they're not.

Nothing exists in a vacuum, and I am certain that the various companies involved have explanations for why they've done what they've done, but something needs to be said to all of them: Give us what we want or the bunny gets it! Trust us.

Trust us, the inchoate mass of chaos that we are, to totally revamp, revise and hack to death any good piece of code. It is

in our nature to break the rules, defy all logic and do the seemingly impossible, transmogrifying code until it whimpers and resembles nothing intended by the designers. No matter how you try to stop us, we WILL overcome your best efforts — it is only a matter of time and there are thousands of us. Call it the infinite gamer principle, if you will.

Out of that chaos will come wonderful and bizarre things. Certainly there are those whose only goal is to stride like a god through games, facing no challenge that is not easily overcome and bashing those of us lesser mortals who foolishly play by the rules into the dirt, but they are in the minority. If Blizzard really intends for us to play without the perils of being hacked to death (in both senses of that





word), let those of us not eager to gain scalps be immune to attack. Sure, it's unrealistic, but the entire concept of *Diablo* isn't exactly a Time-Life book, and it would preserve us from the hornets' nest of testosterone-poisoned players who believe that cyber-killing makes them more important.

Trust us to play the game as we will. We spend our money to buy their products (actually, to buy a license to play their products — we don't ever own anything but the CD and the box, but that's another tirade). The less latitude companies allow us to execute our strange and deviant methods of play, the fewer dollars they will reap at the counter. Id certainly should know that. They have built expensive houses and bought expensive cars because they created a game based upon that principle of freedom of choice. Burger King is still in business for a reason. Put the map in already. So it's not realistic. Who's to say? Blizzard made boatloads of changes to please us and put the fun in *Diablo*, and it worked for them.

Trust your designs when they're good, and listen to your playtesters and the public when they're bad. The *Mechwarrior* series had great design elements (e.g., the Mechlab) that should be built on, not run over. Certainly it's easy to do, but don't fall in love with a new design to the extent that you lose sight of what the point of that design is. *Privateer 2* has an interface that could have come direct from the folks responsible for Kai Power Tools, but it functions very well. I departed from routine, started playing right off, and had lit-

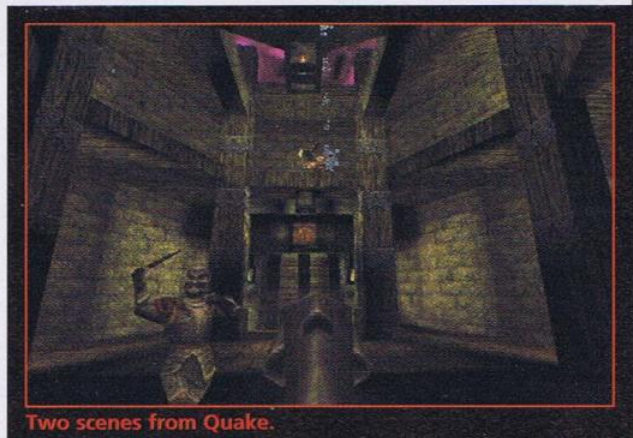
tle difficulty doing what needed doing. Much to their credit, Activision has, as emphasized, listened to us after the fact and has issued a patch with a re-vamped Mechlab, among other improvements.

While I'm on a tirade, we should rethink our behavior also. We shouldn't pester companies ceaselessly about release dates and then, when they grudgingly give us what we asked for, cry and carry on about how our lives are ruined by the "game of our dreams" not coming out 5 seconds after its due date. Or worse still, yell loudly that they released a box o' bugs (patent pending) if they shove it out the door on time to please us. Be consistent. Be patient. Good games are coming out so often that we don't have time to play all of them anyhow, so find another *desidergamea* and kill things.



Trust the game companies. If you're angry about a game, be angry (Lord knows I am, at times), but be civil to the company reps. Except for a small minority, none of these people, nor the companies they work for, are evil incarnate (with the possible exception of the guys at id who designed the fiends in *Quake*), nor are they seeking to do us deliberate ill. Most of the things they do that we are angered by were done for a reason, frequently survival. Ever hear of "publish or perish?" Stop the insanity, get some perspective.

Should you have any words of derision or delight you may reach me at 72662.3066@CompuServe.com. Until next time, when we'll get down to some gaming nitty-gritty. Now it's time to kill things! (C)



Two scenes from Quake.

The Gate Keeper

BY ANDY BACKER



Andy Backer's first computer gaming foray came when he wrote reviews and walkthroughs for the CompuServe Gamers Forum back in 1987. He began writing for magazines a few years later, and has since gone on to author the hint book for Legend's Death Gate. He has also had some of his walkthroughs published in Solutions and Cheats to the Hottest PC Games and The Best Adventure & Role Playing Games Strategies and Secrets.

GAMERS WHO PLAY ADVENTURE GAMES may not discover an adventure game's secret. They can't discover it until after they've been to Oz. After Oz, an adventure game is a horse of a different color.

My first adventure was composed of text on a screen. I had to type N, S, E, W until I stumbled into a "room." The text read something like, "You are in large room with doors to the (N)orth and (S)outh. There is a cage in the middle of the room. What do you want to do?"

"Look at the cage?"

"It's an ordinary cage with a door."

"Look inside the cage!"

"Inside the cage is a key."

"Open the door."

"Which door? There are three."

"Open the cage door and get the key!"

"The cage door is locked."

I would get so frustrated I'd type "!!!@#\$!%!!"

"Using foul language will not help you get the key."

After that kind of first experience I thought that adventure games were designed just to frustrate and humiliate me. "Who needs this?" I thought. "It only makes me feel bad. I'll go read a book. That always makes me feel better."

So I'd go read a book, or more likely just boot up another program. Playing around with my computer usually made me feel better, too. Every time I was able to figure out how another program worked, I'd go to bed beaming. Hey, stop smiling. I'll take my successes where I can find them. Different strokes for different folks, right?

Time plays tricks with my memories, so if I don't have this next part exactly right, forgive me. It's been over ten years since I've played the game. My breakthrough adventure game was *Planet-*

ADVENTURE GAMING COMMENTARY

fall. An ordinary space opera until the hero met Floyd, the robot. As I remember it, our hero repaired the robot and Floyd followed him like a puppy. That clanking robot became the hero's loyal friend for life. Then he died.

Yep, Floyd sacrificed himself so the hero could live. I bawled my eyes out. I guess you had to be there. Whatever, the game sure surprised me. It stabbed me through the heart and here I didn't think I had one. "I am the Tin Man, man. Nothing can touch me." 'Cept Floyd.

"But this was just a computer game, for crying out loud!" I exclaimed to myself. "Oh, sure, I've been moved by literature before, but this isn't literature — or is it?"

And with that thought I discovered the secret of adventure games. As with Oz, in good literature you find the qualities you thought you lacked but possessed all along. The better adventures allow you to find those qualities. After you've been to Oz, you discover that adventure games can relate to your personal life, just like literature does.

MONTH IN REVIEW

Gamers who play adventures (like Kramer eats potato chips — additively, bag after bag), had plenty of new releases to chomp on in December, some tastier than others. *The Pandora Directive* is still my favorite adventure of the past year.

Circle of Blood may be the best of the Christmas releases. It's a solid mystery adventure, warmly told and superbly illustrated. A man in a clown suit substitutes a bomb for a briefcase in a Paris bistro. Our hero (sitting at a table outside when the bomb explodes) discovers that the legendary treasure of the historic Knights Templar was involved. Clues take him to exciting locations all over the world. The game was created by Revolution who gave us the sci-fi sleeper *Beneath a Steel Sky*. This time they're taking maximum advantage of the Don Bluth animations.

Leisure Suit Larry 7 is no disappointment either. It's perhaps the best of the *Larry* series, politically incorrect as always, but graphically superior (the women are especially attractive this time around). The plot features Larry's quest to board Captain Thygh while on a sea cruise. If you don't mind sophomoric sexual innuendo or partial nudity check it out. Don't expect to be shocked, though. There's more tease than sleaze in the game.

Toonstruck features Christopher Lloyd trapped in an animated cartoon world. It is brilliantly produced but has an uneven script. Although *Roger Rabbit*-like, it's not a game a family should play together (innocent cartoon characters similar to Porky Pig or Mickey Mouse using profane language). Unlike *Larry*, there is no tease, just a bit of sleaze (a scene with a dominatrix sheep whipping a masochistic cow for example). Most of the game is fun — sometimes silly — and some of it is tasteless.

Timelapse offers amazing photo-realistic graphics and intriguing mechanical puzzles. It's smoother and sharper graphically than *Myst* — a game it clearly tries to emulate. Graphically, it betters *Myst*. It's also less of a solitary environment because the designers



Circle of Blood

have added ambient sounds and various images of animal life. *Myst*, though, is still the better game.

Lighthouse, a superior adventure game, has been garnering more messages on the Internet than any other adventure for several months. Its resulting popularity may be due to the fact that it is



Nemesis

so difficult to solve. Pixels are sometimes hard to find and the point of view is inconsistent. For example, in the opening scene, car keys can be seen in the distance immediately after you open the house door. Oddly, you may not walk outside to open the car door or start the engine. You must

use the keys on the car from inside the house and then remain there as you watch yourself drive away.

If you prefer adventures laced with action, run, don't walk, to your local software store and grab *Tomb Raider*. It's more of a platform game than a puzzle-type adventure. Its heroine must swim, leap, climb or shoot her way past the game's many hazardous obstacles. Amazingly, it provides the smoothest and most exciting action graphics I've seen in an adventure game, yet.

Role-playing enthusiasts have fewer choices. *Daggerfall* is (bugs and all) the best role-playing game of the year. Addicts may also want to pick up the RPG-lite *Nemesis* from Sir-Tech and a fascinating environment vs. technology essay from Blue Byte called *Albion*.

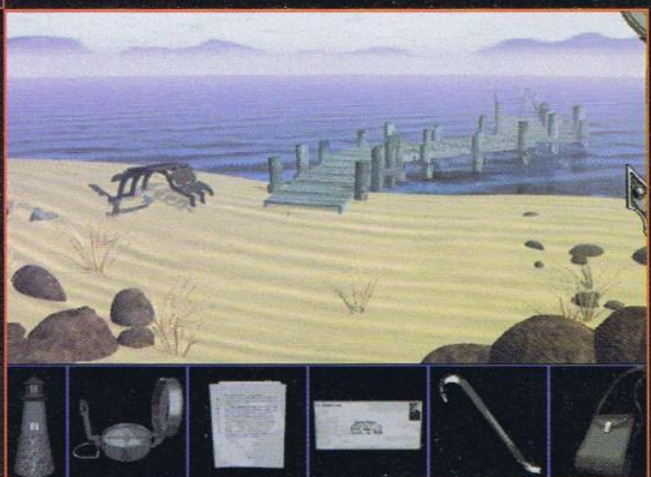
OFF THE BEATEN PATH

I enjoy playing all kinds of games. You won't ever find me complaining about a lack of anything out there to play. The emphasis as to which genre publishers think will sell the most copies shifts from year to year, but the number of good games in all genres keeps increasing. We've just gone through "The Year of the Strategy Game"; before that it was "The

Year of the Action Game," and sometime before that "The Year of the Role-playing Game." Who knows what this coming year will bring? For that matter, who cares?

I certainly don't. I often stray off the beaten path to find a sleeper or two you otherwise might miss. My specialties are adventure and role-playing games, but don't be surprised when I recommend a game from another genre. Just because one loves adventure games doesn't mean they won't find it in games like *Might and Magic II*, *Blood*, and *Magic and War Wind*. I did.

This past month's sleeper was the highly original *The Neverhood*. It has gotten mixed reviews but deserves the highest of praise. It's a fable for adults, told in a child's medium –



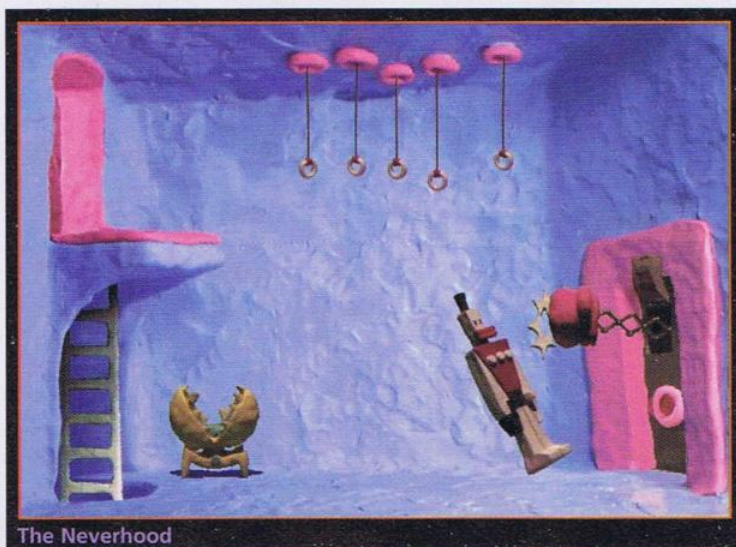
Lighthouse

clay. The hero is a simple clay creature who finds a series of clay tablets that play segments of a film (drawn, of course, on clay) giving him clues regarding his ultimate place in the universe. It's a story of good and bad; fascinating to watch and tricky to solve. Clues left on clay toilet paper in the clay commode only sometimes help.

Share your thoughts with Andy by writing him at andy-backer@aol.com or 71202.3451 @compuserve.com. (M)

AN ADVENTURE GAME

allows a gamer to safely participate in hazardous or exciting experiences. The usual adventure game involves finding objects through exploration, overcoming obstacles and solving puzzles along the way. A role-playing game is an adventure in which the gamer creates or inherits heroes who begin the game as weaklings but improve statistically with experience (mostly combat). The weakling becomes a great fighter, the apprentice a great magician, and so on.



The Neverhood

From The Pressbox

BY BILL HOLMES

SPORTS GAMING COMMENTARY



Bill Holmes may be familiar to sports gaming fans. Besides co-editing Online Reviews, a popular digital magazine, Bill has penned a legion of feature articles and reviews for several other leading publications. In 1991 he co-founded the Sports Simulations Forum on CompuServe and helped develop some of the first online gaming leagues, many of which are still active today.

A lifelong fan of the Houston Astros, Oilers and Rockets, Bill has vowed never to let his personal angst spill over into this column. Or at least that's what we stipulated in his contract...

WELCOME TO THE PRESS BOX, folks! I'm looking forward to spending some time with you here each issue so we can chat about what's going on in the world of sports gaming. When you picked up *CGE*, you did so because you wanted something different. Well, when we started this magazine we had the same goal in mind. In *The Press Box*, we'll discuss the yeas and nays circulating on the gaming scene, occasionally lifting the caps and helmets off of various sports figures and personalities to give you their take on gaming, too.

Our in-depth examinations of current games will, among other things, discuss why the product may or may not appeal to the sports gamer standing astride the checkout line. Moreover, we'll be taking a peek at what's coming down the pike, doing our best to help you budget your time and your wallet accordingly.

The proliferation of online services and Internet web sites has deposited a myriad of games, fixes and other utilities on our cyber-doorstep. We'll help you find and enjoy the best add-on features, the most competitive leagues, the latest updates and the hottest sites this side of the Green Monster. Sound fair?

REAL LIFE, REAL SPORTS

I was fortunate enough to have been born in New York City, where professional sports teams seem to have grown up alongside Nathan's foot-long hot dogs. At the time, there were but a few television channels to choose from, so I never really knew what I was missing in my own backyard. My father ably assisted though, taking me to see several baseball and football games around town.

To put it simply, everyone should experience the thrill of traveling to The Bronx, noodling down the corridors, past the ticket takers and into Yankee Stadium. After the drab subways and hustle 'n' bustle of the big city streets, you reach the end of the pedestrian ramp only to see that beautifully manicured green grass lawn stretched from one end of the field to the other. Remember when Dorothy's house crashed down into the land of

Oz? You know, when she opened the farmhouse door and everything previously decked out in dull black and white tones were now adorned in beautiful living color? Er, that's a close second to Yankee Stadium, folks.

Born from this passion, I soon discovered the wondrous world of board games, where dice, cards and a #2 pencil could transport a player to his own private field of dreams. It was crude, yet wonderful; after all, a child's imagination can fill in many a blank slate. Little did any of us realize that one day we'd be empowered to recreate these dreams of yore, taking advantage of powerful databases, backlit spreadsheets and graphically-intensive programs (complete with sound effects, announcers and yes, "corked" joysticks) to wallop a ball into Yonkers!

Real sports have changed dramatically over the years, and our supposed heroes are but faint shadows of former big leaguers. Teams are run by stockholders and accountants, not sports-minded men. Managers and coaches are hired to be fired, and are told what to do, in no uncertain terms, by their higher-paid players. Loyalty? Hah! Don't get too attached to the players on your hometown team because that player — heck, the whole team — may be gone tomorrow. And for every Hakeem Olajuwon who plays with dignity and grace, there's another shnook complaining about ball time. And don't get me started on boxing, which shifted from a sport of pugilistic honor to a bigger sham than professional wrestling. It's unbelievable that a boy can cry "King", er, "wolf" so many times and people keep coming back for more. There's not only a sucker born every minute, but they have Pay-Per-View, too.

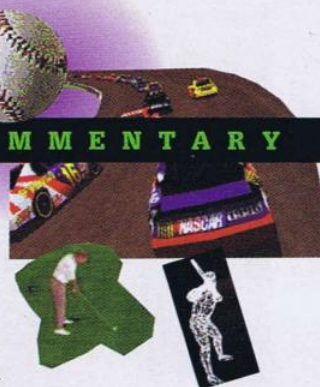
Strikes, lockouts, agents, spitting, fighting, moving, fixes, wild cards, designated hitters, sack dances, dives, committees, Acting Commissioners....yikes! Thank the Almighty for sports games!! That's always been my cardinal rule and credo — Play fair, play hard, and have fun.

STATE OF OUR UNION

Naturally, gaming is enjoyed on many levels and platforms, but like the title implies, this column's primary focus is to address those sports that have migrated to the big box sitting right there on your desk. In upcoming issues, we'll be focusing on the newest and hottest sports titles, but we'll also bring you up to speed on the best of the rest — those that have stood the test of time and still warrant extended play.

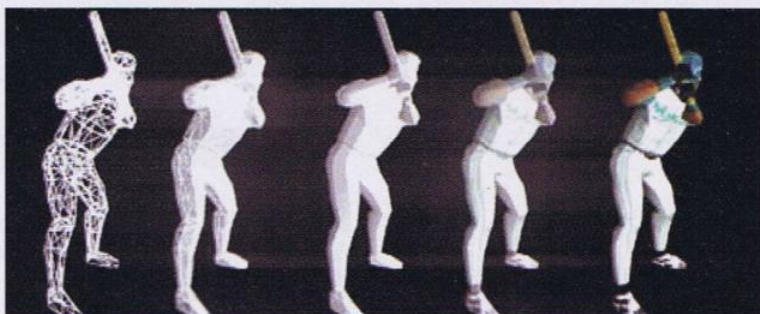
Since game products rode the tidal wave of technology along with the rest of us, there have been some amazing changes. It was but five short years ago that a player running a VGA game on a 386 computer was dubbed "Mr. Cutting Edge"; now players from across the globe routinely slam heads across the Internet on nothing less than full-blown Pentiums with MMX technology.

The byproduct of all this newfangled gadgetry coming to market is aimed at furthering the suspension of disbelief. Whether it be greener grass, more fluid motion, the blood-curdling grunts and groans of the linemen, or the sweet pearls of wisdom emanating from the wide-eyed announcers, most of us can't get



enough. Our eyes and ears lap up the visceral experience seeping forth from the computer, hopefully taking us to a world we've come to hold near and dear to our hearts.

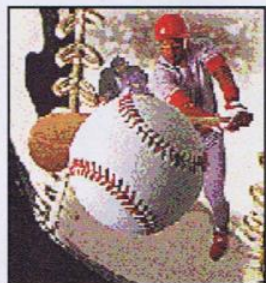
Has this trend for bigger, better and faster hardware helped us or hurt us? Why, in an industry that has conquered so many obstacles so quickly, has there been no single game that delivers on all counts? Where is that perfect game we've so blindly expected all these years and been led to believe exists?



SPRITES VERSUS STATS

If there is a line of demarcation between gamers, the widest gulf probably exists between those devoted to action crunchfests and

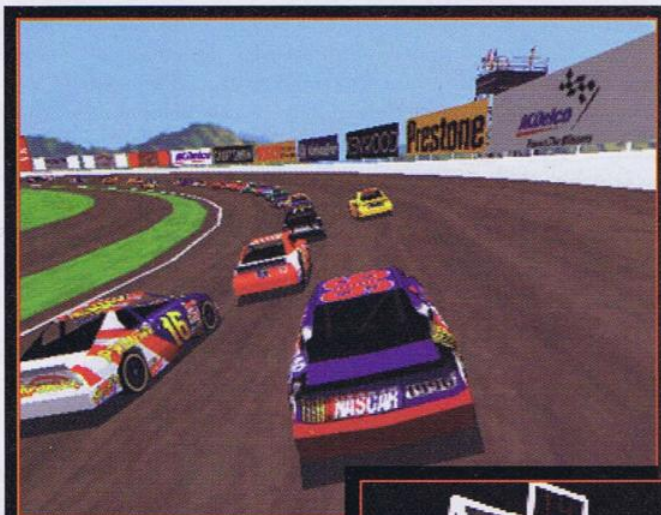
Well, call me selfish, but I want it all. I want the stat engine and the rosters, the color and the sound, the career modes and everything else all in one nice little box. Yes, I know what a budget is, and yes, I know what a deadline is. But I also know what a "lowest common denominator" is and I'm going to be asking (nay, challenging) the sports companies to deliver the goods. We've got the tools, we've got the interest, and Lord knows we have the promotional tie-ins. Now....



SHOW ME THE MONEY

But that's the whole point of this magazine and column. It's easy to write a nugget-sized review ripping any product (movie, music, game) and then duck when the fur flies. What kind of service does that provide? There are endless shelves of these titles lurking about out there, and they're stacking up deeper and taller every day. Yeah, the box art looks great, the quotes gleam with pride, and hey, isn't that Athlete "So-and-So" plastered on the cover, grinning from ear to ear? You need more information. You deserve more information. That's why you picked up this magazine, and that's why we won't let you down.

That's my story and I'm sticking to it. See you next issue! (BOB)



Sierra's NASCAR Racing 2

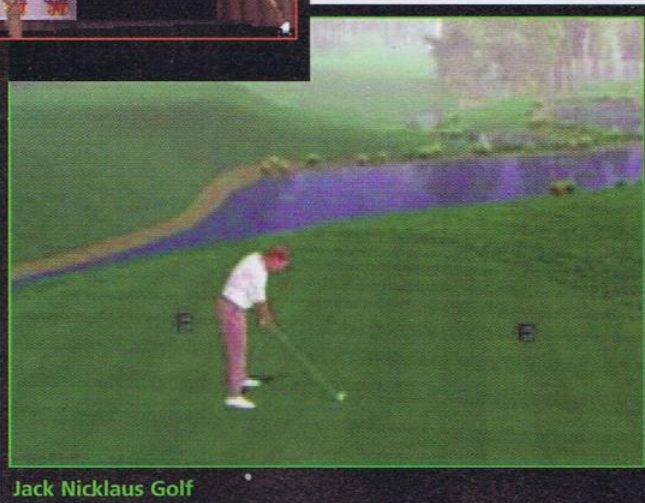
those craving realism. For example, a popular WWI simulation of years past was adored because of its crisp graphics and colorful environment, not to mention its sound effects were spectacular. However, an equally vociferous group crowed that the simulation was downright ludicrous, the biplanes and prop puppies portrayed accelerating and handling more like modern jets than crates of yesteryear.

This same dichotomy is probably most evident in the sports arena. Despite several years of practice, we still have a multitude of games surging forth that typically leans toward either action or realism. There's nothing more frustrating than viewing a beautifully rendered baseball game, only to stare open-mouthed at the scoreboard which depicts a 31-12 slugfest.

It may depend on how you trace the lineage of sports gaming. For every hard core APBA player who spent hours re-calculating batting averages longhand (how did we ever live without spreadsheets and calculators?), there's another ardent enthusiast who was weaned on quarter-munchers at the local mall. So who's right? Well, that's not only a relative term, but a subjective standpoint. As we examine the latest products, we'll do more than slap a grade on it; we'll explain why it got what it got. After all, one reviewer's rating of 95 could be another person's 55, correct?



NBA



Jack Nicklaus Golf

The Kids Corner

BY JIM McCULLAUGH



Based in Los Angeles, Jim McCullaugh is the former editor-in-chief/publisher of MultiMedia Merchandising, a trade publication covering the glamorous multimedia beat. In addition, he is the co-author of Entertainment In The Cyber Zone:

Exploring The Interactive Universe of MultiMedia (Random House, 1995).

Prior to those endeavors, Jim was the Home Entertainment Editor of Billboard Magazine, the international music/home entertainment newsweekly, where he covered music, home video, film and consumer electronics industries for more than a decade. His articles on the entertainment

industry have also appeared in the Los Angeles Times, Playboy and Rolling Stone. He can be reached, via e-mail, at cybr-cap@aol.com.

IN CASE YOU HAVEN'T BEEN NOTICING — or perhaps are new to the world of interactive multimedia software for the younger set — there's been a major shift in education or so-called edutainment software. The major entertainment and toy conglomerates have arrived, their various associated characters and icons in tow; Barbie, Buzz Lightyear, Bart Simpson, The Pink Panther and Wishbone.

In many respects, educational software has taken on the trappings of the toy, movie, and home video businesses where a licensed — and leveraged — character is everything and mega-advertising, marketing and cross-promotional dollars are the order of the day. The question is: will consumers be better off because of this trend, and will quality interactive multimedia software remain at its present high caliber?

To understand how we've arrived at this point, however, a little history lesson is in order. The educational software business sprang from the floppy disc era of the 1980s and was built by such pioneering computer-based companies as Davidson & Associates and Broderbund; the former, the designers of the critically-acclaimed *Math Blaster* series and the latter, the creators of the legendary *Carmen Sandiego* geographical learning series. Both companies are still flourishing and continue to produce outstanding CD-ROM edutainment titles.

In the late 1980s and first half of the 1990s, however, multimedia CD-ROMs started popping up, taking full advantage of the medium and the ensuing imaginations of a number of would-be publishers, both large and small. The result was an extraordinary deluge of educational CD-ROMs for consumers from established and newer companies, many of them featuring original charac-

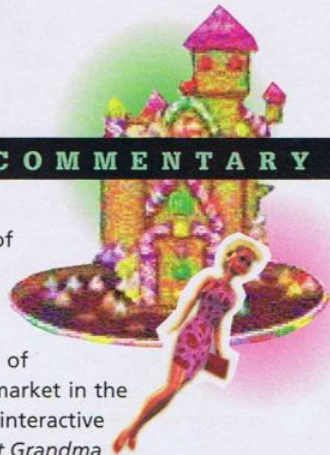
CHILDREN'S GAMING COMMENTARY

ters and concepts. In fairness, many of these titles were rich in content and provided lots of fun as kids genuinely learned something. Living Books, for example, deserves a lot of credit for shaping the edutainment market in the early 1990s with its innovative line of interactive storybooks. Dynamic titles such as *Just Grandma And Me*, *Arthur Teacher Troubles*, *Harry And The Haunted House*, *Little Monster At School*, and others were published, all of which literally breathed life into the computerized printed page. Animation and voice characterization were key, helping to teaching youngsters the fundamentals of reading and vocabulary in a delightful way. Any number of companies have subsequently emulated the Living Books approach.

Predictably, though, in the mid-1990s, the larger entertainment companies started taking a keener interest of the market. The movie studios and toy companies, after some experimenting, decided it was time to really take aim at the kids' CD-ROM market, as well as the lucrative CD-ROM gaming market. After all, next to games, educational software remains the second largest selling interactive software category. Disney Interactive emerged using its familiar animated movie tie-ins as an obvious foundation. The company started releasing a series of animated CD-ROM storybook products including *Toy Story*, *Pocahontas*, *Winnie The Pooh*, and *The Lion King*. Last Fall, Mattel Media entered the fray, taking advantage of their ageless Barbie doll characters to produce an equally impressive list of software titles — *Barbie Fashion Designer*, *Barbie Storymaker*, and *Barbie Print 'n' Play*. The *Barbie Fashion Designer* product — which allows kids to create outfits on the computer then print them out on special fabric which can be fitted to a standard-sized Barbie doll — is reportedly one of the biggest and fastest-selling children's CD-ROM titles ever devised. The product has taken the industry by storm and provided young girls with their first real killer application on the multimedia PC. Other studios are jumping on the bandwagon. Fox Interactive — with their *Simpsons Cartoon Studio* — and Hasbro Interactive, featuring their celebrated Mr. Potato Head character — are testing the waters.

Where all this has taken us, of course, is to a more commercialized children's software world. While change was inevitable, this market seems destined to be dominated by fewer and fewer well-heeled major entertainment companies whose merchandising mandate may be founded upon synergy, and not necessarily quality. With their entry, it's going to be more difficult for the smaller, independent high-quality educational software publishers to expand, or for that matter retain, their share of consumer confidence and retail selling space. Even longstanding pioneering companies may find it harder to compete against the larger, well-financed entertainment behemoths.

That's a shame since many of these companies helped build and have become the backbone of the edutainment software business. But let's face it: Not many independent companies can take a licensed character such as Barbie and spend millions of dollars on television and print advertising to let consumers know



their products are even available. Remember, apart from magazines and a few televised segments, there are still no widely-accepted preview mechanisms covering CD-ROMs!

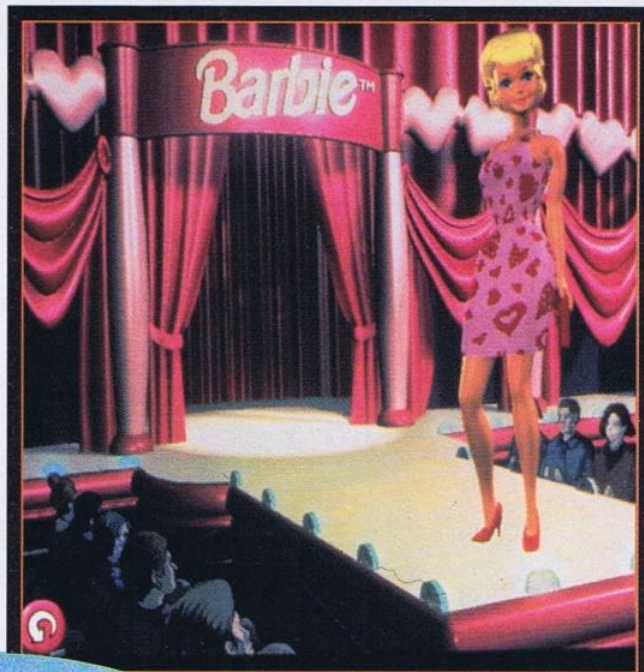
There's a real danger now that many quality edutainment titles will never be purchased or even see the light of day because of this innate inability for many publishers to compete on the same mass-marketing level. The increased funding needed to become a viable software publisher could expel many companies from the edutainment market. Some have already fallen by the wayside, while other companies are being gobbled up and pointed down the path as development houses.

Is the shift to more branded software a good thing? It is, if producers incorporating branded and licensed images into educational software products continue in the pioneering tradition and ensure that their products are first-rate. Most observers, myself included, think that Mattel and Disney have done a splendid job with their first catalog of software titles, even though not everyone would agree. Some observers feel that Disney Interactive's line merely permits kids to act out a movie role, offering little ancillary educational benefit.

Another downside to branding is the trend towards "me-too" publishers, seemingly destined to produce more low-quality products by riding on the coat-tails of the more high profile branding campaigns. Bear in mind, too, that not every well-known, licensed character from a major software company will be injected into a top-notch educational product. The larger companies could lose their focus if software represents only a fraction of a licensed character's marketing equation. The edutainment-purchasing public will need to be much more wary in the future.

Here's my advice to consumers; check out the big branded titles nestled in mass-market, mega-advertising campaigns. But make sure you give equal time to the many software labels and titles out there which can prove to be every bit as rewarding...even if they are a little harder to locate. And there are lots of them already out there, including titles from companies such as Edmark, The Learning Company, Educational Insights, Knowledge Adventure, Philips Media, The Discovery Channel Multimedia, Maxis, Theatrix Interactive, Sanctuary Woods, Simon & Schuster Interactive, Mindscape, Humongous Entertainment, Creative Wonders and several others, just to name a few. One case in point. While Barbie captured headlines, shelf space and sales during the holidays, other titles such as Educational Insights' *GeoSafari Animals* — a splendid educational title — were also available. It's one of many edutainment titles worthy of consideration.

So, how do you find good educational titles if your local computer superstore decides to devote most of its shelf space to A-titles backed by mega-marketing campaigns? The answer is to remain consistent. Continue to make purchasing decisions on



Mattel's Barbie Fashion Designer



Hasbro's Candyland.

prospective educational software using information obtained in schools, reviews in trustworthy consumer publications, demos, and recommendations from other parents or friends. In most major cities there are retailers — such as Kid Universe in Los Angeles — where demo stations allow you to test drive a kid's title you may be unfamiliar with.

And don't forget the Internet. Increasingly, the Internet has become a viable, if slow method of checking out current and newer edutainment titles. Start collecting the Web site addresses of a wide variety of educational software publishers, and make sure to check them out on a regular basis.

The fact of the matter is that good quality educational software can make a world of difference in the typical child's learning process. I've witnessed it with my own children and have seen it happen to many more children as well. High quality educational software can teach the tenets of vocabulary, sentence structure, cognitive skills, conversation, pattern recognition, hand-eye coordination, self-control, recognizing patterns, alternative approaches to problem solving, and much, much more. It absolutely behooves you to find and buy the better titles.

In future issues, we hope to provide insights on further trends in educational software. In general, we'll also offer recommendations on specific titles, certain developers and various companies, indicating why they should be followed more closely. In the meantime, have fun!

©1997

GENRE DIFFERENTIATION

While most games can be sorted into readily distinguishable genres, some exhibit various traits and qualities which cannot help but muddy any neat, predetermined distinctions. Bearing this in mind, the editors — in order to facilitate and simplify the classification process — will ultimately determine the key underlying elements found within each game, accordingly categorizing each new release from amongst the following genres:



Adventure: Usually, but not always viewed from a second or third-person perspective, adventures oftentimes focus upon the progress, actions and achievements of a single character as he or she advances through an unfolding story. **CRPG:** Inspired by such stalwart pen-and-paper games as *Dungeons & Dragons*, we interpret computer, role-playing games as those products which require the methodical employment and use of several interdependent characters and inventory to reach an ultimate objective.



Simulation: We define a game as a simulation if it attempts to model actual machinery, weapons or vehicles. Therefore, games such as *X-Wing* and *Mechwarrior 2* are classified as action games since the behavioral characteristics and physical properties of these systems preclude any serious discussion on flight modeling, behavioral statistics, etc. Whenever possible, our writers will attempt to compare the simulation with its real-life counterpart, examining it for accuracy and level of detail portrayed.



Wargame: Essentially strategy games in nature, we define wargames as those second or third-person perspective products which replicate any period of history or near-term event from a purely military standpoint. **Strategy:** These games usually require the player to manipulate resources, develop and expand an infrastructure or combat an enemy force in order to attain victory or achieve a set of predetermined objectives.



Edutainment: A term coined by the conglomeration of "education and entertainment." Oriented towards a preschool, school age or adolescent child, these products, although couched in playtime activities, are ultimately intended to teach the child various cognitive, developmental or interpersonal skills. To simplify matters, we also include interactive tales and animated storybooks within this category.



Sports: Fairly straightforward, we consider a product as a sports game if it replicates any present day sporting event (baseball, hockey, soccer, etc.) Games like *NASCAR Racing*, although replicating a sporting event, falls squarely under the realm of simulations since it relies upon the employment of a vehicle to simulate the event.



Multimedia: These titles, usually bereft of any significant game-playing elements, instead attempt to provide behind-the-scenes commentary or medium-specific focus.



Action: A fairly broad, rather all-encompassing category, action games include first, second and third-person shooters, side scrollers, fighting games and any simulations falling outside the aforementioned definition.

BECAUSE OUR WRITERS AND EDITORS are both skilled gamers and experienced reviewers, we believe it only fitting to grant them an unprecedented degree of latitude in their product analyses. Therefore, although the staff has implemented a standardized grading system and developed certain guidelines to help structure the overall reviewing process, the commentary, criticism and scores provided have been determined solely by the reviewer. Apart from certain grammatical corrections and editing practices, the staff refrains from tampering with a review in any manner, shape or form. We should like to point out that, wherever possible, we have striven to preserve the overall tone, style and content of any and all submissions in order to present an intelligent, balanced and unbiased appraisal of each product at hand.

From time to time, *CGE* plans to run rebuttals, which will be authored by a member of the game's design or development team. Positioned opposite the review, our ultimate intent is to provide a balanced viewpoint that may or may not refute any of the comments raised by the reviewer. Like the reviews, rebuttals may be modified in accordance with spatial restraints.

Counterpoint

A rebuttal to G-NOME review

By Don Detachen,
Senior Software Engineer

Whether he was under a strict deadline or under a tight budget, for any duration of time, or whether he brought to the table the resources of what G-NOME should or should not be, Baker remained in his review a true understanding of the nature of the game that made it much more of a "thinking man's adventure" than he leads his audience to believe.

Criticism like having to watch the opening cinematic and clicking the mouse button are all. You can't get the cinematic by pressing the spacebar, and it's not unusual to have the ability to configure the game according to your machine and professional standards.

scale is adjusted to view the world from within the world, or using an internal camera to attempt to suddenly both way and really looking.

One inside at NACAR, the reviewer found effective control difficult unless he stood still. Unfortunately this is one of the quietest ways to lose an engagement, as he apparently found out many times. The fact that some weapon mounts do not seem to fire with the player's vision only reflects the realism that went into the modeling of these great machine beasts. Practical physics drive that some weapon





How We Rate the Games

Game ratings are determined based upon the compilation of a number of weighted sub-factors. Utilizing a sliding scale (40 equaling the worst, 100 the best), awards can be garnered depending upon the overall score. Games attaining overall scores of 85 to 89 will earn themselves the coveted CGE Silver Star. Games scoring in the neighborhood of 90 to 94 are awarded the highly-acclaimed CGE Gold Star; and especially noteworthy games scoring 95 or better are pinned with our proudest decoration; the Computer Game Entertainment Platinum Star. We evaluate each game and determine the scores based upon the following criteria:

OVERVIEW

HITS: Extremely hilarious with excellent graphics and uniquely intuitive interface

MISSES: Some of the voice-acting could stand a few more acting classes

THE LAST WORD:

For those who prefer to be entertained over challenged, this is the funniest adventure game this year.

Ratings

Dollar Value	29
Playability	18
Originality	8
Graphics	16
Sound & Music	7
Physical Components	7

OVERALL
85

Furthermore, we augment the scores by explaining some of the nuances, both good and bad, that we uncovered in our review in the Overview. If anything specific needs commenting or highlighting, we'll state it here.

HITS: In plain English, we outline the best features of the game.

MISSES: We succinctly discuss factors such as omissions, incomprehensible manuals, glitches, bugs, etc.

THE LAST WORD: Used in conjunction with our overall score, this represents our bottom line, no-holds barred assessment of the product. If the score doesn't serve as a guide, then our final text-based assessment of the product should.

As you can see, our evaluations are all-encompassing, and attempt to discuss every relevant aspect of the game or peripheral product being reviewed. As product prices escalate and an ever greater number of products are released, we believe it is exceedingly important to provide you with the most detailed and timely analysis conceivable. We hope you appreciate our endeavors.

Dollar Value: Was the game worth every cent you spent on it?
Weighted Range = 5 - 30

Playability: Some of the most critical factors of a game are held up and scrutinized. Is the interface intuitive, gameplay seamless, and AI challenging enough to warrant extended play or a trip back to the store shelf?
Weighted Range = 5 - 20

Originality: Does the game break new ground or simply trod where others have already trekked?
Weighted Range = 1 - 10

Graphics: Does the product contain state-of-the-art animation, high-quality artwork, and fully-rendered objects and background scenery?
Weighted Range = 5 - 20

Sound & Music: Are the accompanying soundtracks rich, dynamic and appropriate, or do they seem destined to reverberate in the average dentist's office? Are the ambient sound effects realistic or mood-setting? Will the rest of the family scream, "turn it down!"?
Weighted Range = 1 - 10

Physical Components: Is there a printed manual? If so, does it and any other ancillary documentation provide concise and detailed information on how to understand and play the game?
Weighted Range = 1 - 10

Overall Score: Numerically, the most important rating of the bunch. The overall score is arrived at by tallying up all of the scores in the previous categories.



Magic: The Gathering

by Andy Backer



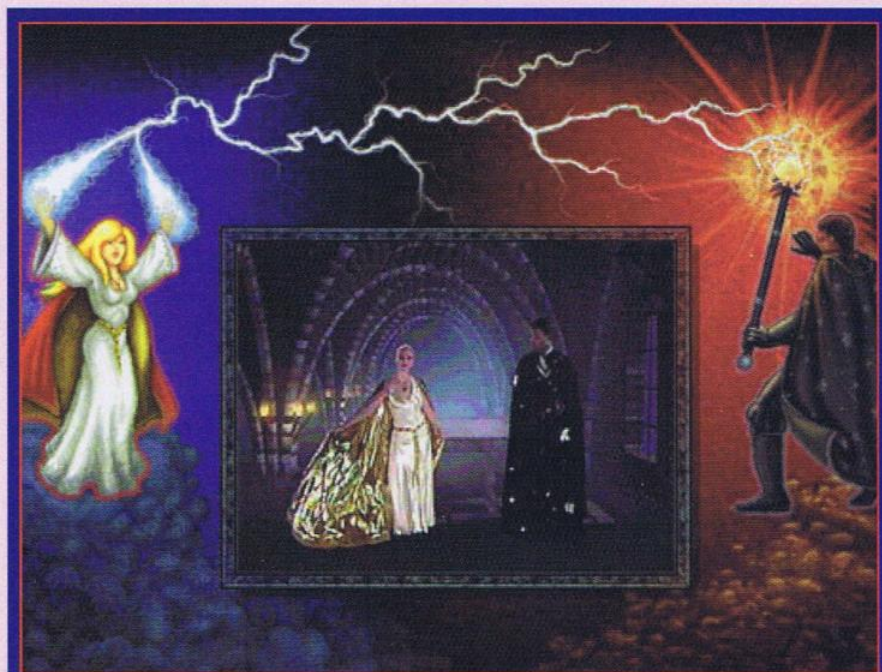
YOU'VE NO DOUBT HEARD all the hyperbole circulating that the paper trading card game, *Magic: The Gathering*, published by Wizards of the West Coast, is so

addictive that people can't stop playing it. It is so popular that within the past four years they've published over two billion cards. Now two computer versions have been released, one published by Acclaim [and reviewed elsewhere, ed.], the other the subject of this review.

The MicroProse version has brilliantly translated the paper card game to the computer using gorgeous high-res SVGA graphics. The game, faithfully following the rules laid down by Wizards of the West Coast, consists of four modules. There is a Tutorial module, which helps beginners learn how to play the game. A deck-building module manages the inventory of over 400 cards. A Dueling module permits players to compete against sixty different decks. Finally there is Shandalar, an adventure-strategy component that lets players buy, sell and trade cards in order to progressively build, then Duel against more sophisticated decks.

All the stops have been pulled out in order to make this version accessible to beginners. There's a two hundred-page manual, a multimedia tutorial, and an online help file. Unfortunately, only the very determined beginner will succeed in ascending the game's steep learning curve. The fault lies not with MicroProse but in the card game itself. There are just too many variables to master, and master quickly. The game can't be learned in a single session, or even overnight. As the saying goes, "It takes time." Still, it is much easier learning how to play this well-documented, turn-based version of *Magic* than Acclaim's real-time and skimpily documented version.

Knowledgeable fans of the paper card



The tutorial includes video of costumed actors who act as guides.

game can dive right in and start playing. They can skip the tutorial module and go directly to deck building, amassing their own decks or modifying one of the sixty decks already provided. Included earlier editions are from 24 out-of-print cards so

"The MicroProse version has BRILLIANTLY TRANSLATED the paper card game to the computer."

powerful that they're no longer permitted in the paper card game tournaments. MicroProse felt that new players should be able to play the cards, seeing for themselves why they are banned from paper card play. Twelve new Astral Set cards are also available in the Deck Builder, and

MicroProse intends to release other expansion sets in the days ahead.

Once players have built, modified or chosen an existing deck, they can go to the dueling module and select a deck to play against. They may also set up The Gauntlet, a mode of play which pits the player against a series of Decks, tournament style. As things stand, players may only compete against the computer; there are no multiplayer options. MicroProse does plan to release a multiplayer module sometime later this year, but their competitor, *Battlemage*, has multiplayer capability already available.

As mentioned earlier, the Shandalar module lets players learn how to trade, buy or sell cards in order to improve their overall holdings. The better their deck is, the more readily players can successfully Duel against opponents, thereby winning more cards. Players can select the level of difficulty, player character and deck, then explore a world composed of plains,

swamps, forests, mountains and islands. This world is also laced with lairs, towns, towers, castles and dungeons, all connected by a network of roads. Only one portion of this world is visible to the player at the beginning of the game, but as their animated player character travels about, more of Shandalar is revealed.

In addition to a deck, the player begins the game with food and gold, one World Magic spell, and a few mana amulets. The player collects additional objects by questing, trading, buying and, of course, Dueling. Players are advised to quickly enter any nearby town then edit their cards, sideboarding some and selling others in preparation for the Dueling segment. They should then enter all of their respective cards — corresponding to the color of their decks — since they are more likely to sell cards the player ultimately needs to find. Players win the game after qualifying for the right to face the wizards, earned by successfully dueling enough of the five primary wizards' minions. At this point, a final battle with the game's evil fozzie takes place.

Players can select from a wide variety of filters in the Deck Builder module with which to view the various sets of cards. All of these filters can be disabled, except in the case of the out-of-print cards. The player, if he is so predisposed, may even glance at the wondrous cards in the Astral Set; none of which is particularly useful, but can be sold in Shandalar. The out-of-print cards include the five Moxes, all mana-producing artifacts with zero cast-



Shandalar is the game's adventure-strategy module.

ing costs. Black Lotus provides three mana of any color. Sol Ring provides two colorless mana at every turn for a one-time cost of one mana, and Mishra's Workshop provides three colorless mana for casting artifacts only. Some of the other out-of-print cards include Ancestral Recall, which only charges one mana to draw three cards. Braingeyser is used to draw as many cards as mana provides. The Library of Alexandria is used to draw extra cards at no cost whatsoever, and Wheel of Fortune, when played, demands that both sides discard their cards and draw seven new ones.



tutorial. The tutorial, then, only serves as a glitzy introduction, which is insufficient by itself to teach beginners how to play. Ultimately, players will also need to study both the printed and the online documentation.

Although the paper card game version may be the best strategy game ever devised, the computer equivalent is less glamorous. It's difficult to learn and even harder to master. Compared to its computerized competitor, though, I recom-

mend the MicroProse version over Acclaim's offering by several furlongs. **CDE**

The fourth and final module is the thirty-minute, multimedia tutorial, a combination of video and interactive software that introduces beginners to the art of Dueling. Costumed actors serve as guides, Dueling in card-like fashion against one another. By their actions, other actors are summoned to the stage, depicting the various scenes of carnage. It's entertaining, but unfortunately the cost is prohibitive outside of the

OVERVIEW

HITS: SVGA high-color graphics, over 400 cards, an entertaining multimedia introductory tutorial, as well as plenty of both printed and online documentation for beginners.

MISSSES: Lack of multiplayer support.

THE LAST WORD: This is the preferred turn-based implementation for both beginners and fans of the paper card game.

Ratings

Dollar Value	26
Playability	16
Originality	9
Graphics	19
Sound & Music	10
Physical Components	10

OVERALL
90



An on-line help file is available.



strategy /
wargames

REVIEW

Medium: CD-ROM
Developer: Real time Assoc., Inc.
Telephone: 516-656-3927

Supports: WIN 95
Publisher: Acclaim
Website: www.acclaimnation.com

Magic: The Gathering — Battlemage

by Andy Backer



DON'T CONFUSE
A C C L A I M
Entertainment's
Magic: The Gathering — Battlemage
with *Magic: The Gathering* published
by MicroProse. While

both titles are based on the phenomenally successful *Magic: The Gathering* card game published by Wizards of the West Coast, there are substantial differences between the two computer translations. For instance, *Battlemage* resolves its Duels in real-time, employing animated creatures and spells. It doesn't attempt to duplicate the structured phases of the turn-based card game like the MicroProse entry does.

Battlemage is primarily an action-strategy game, calling upon players to exhibit fast reflexes, quick wits, and the ability to recognize two hundred spells by the card's artwork alone. While this may be somewhat of a realistic expectation for those already familiar with the card game, it's a distinct disadvantage for the novice.

At the beginning of the game, players assume the role one of six wizards. Half of them are selfish bounty hunters, bent on conquering the mana-rich land for their own benefit, while the other three are more self-sacrificing, seeking only to protect the people of Corondor.

Each wizard starts with a single territory separated by twenty-four neutrals. When the player attacks a neutral territory, s/he may or may not encounter one of its denizens. Free of demonic company, the territory may elect to join the player if it so chooses. Cards equal power, so the more cards the players have, the higher the probability that the territory will elect to join them. If the player attacks a territory controlled by an enemy wizard, s/he may still have an encounter with someone else in the territory. If that person grants the territory, the player won't have to Duel the other wizard. Therefore, it is best to avoid Duels until players know the wizards'



weaknesses and can react accordingly.

Long-time *Magic: the Gathering* fans will recognize the *Battlemage* characters: Tevesh Szat and Leshrac, from Ice Age; Dakkon Blackblade and Sol'Kantar the

verse's most powerful wizards — Jared, Tevesh, Leshrac, Kristina, Sandruu, Geyadrone — to Corondor, where they can battle each other until they're weak enough for Ravidel to pick them off one by one. He is the embittered kind of villain that hates the world and everyone in it.

A selected group of cards is called a Tome. Tomes can contain no more than sixty cards, but thirty-five percent of these cards should be mana-producing. As players will discover, it will take different Tomes to defeat the different wizards.

Duels are viewed from a top-down vantage point, watching as two wizards face each other on the battlefield (the player often has to scroll across the screen in order to find the opposing wizard). Both the player and computer-controlled wizard activate mana-producing cards from their Libraries (seven cards selected at random from a Tome) to cast spells. This facet of play transpires in real-time, which means that

"In general, BATTLEMAGE TELLS A TERRIFIC STORY, is well conceived, is competently implemented and challenging to play."

Swamp King, from Legends; Sandruu the Anaba Minotaur, from Homelands; and the most popular characters, the Shadow Mage Jared Carthalion, and the BattleMage Ravidel. It is Ravidel's insidious plot that drives the game, luring the uni-

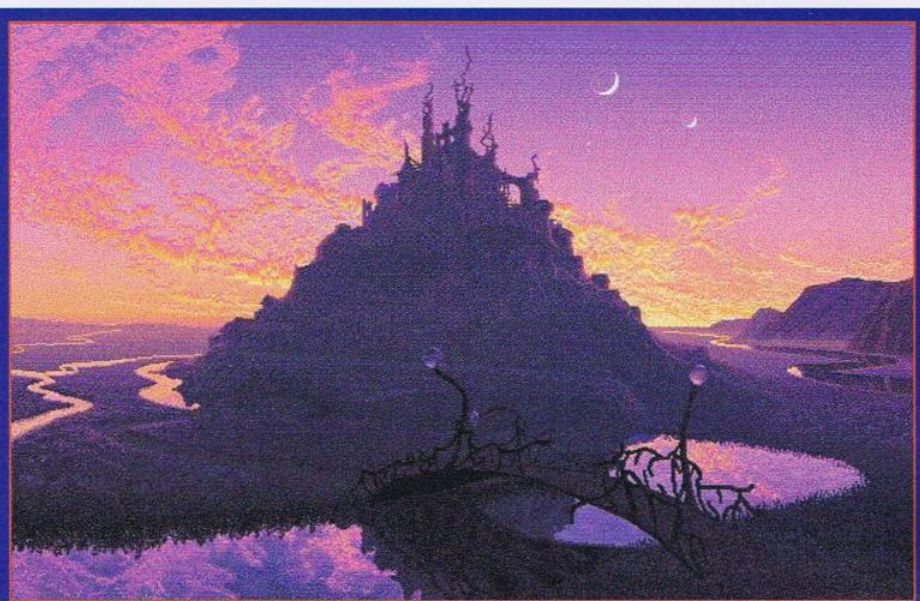
the opposing wizard is tapping and casting at the same time as the player. A neutral commentator indicates which spells the computer-controlled wizard is casting in order to prepare the player. Every spell, artifact, enchantment and creature is then displayed, animation style, on the battlefield. In time, the battlefield is rife with action as the two wizards continue with their showdown.

One warning should be made to long-time *Magic* card players. In order to accommodate the real-time aspects of play, some *Battlemage* spells are different than those portrayed in the card game. For instance, the original Fireball is a direct damage spell that can't be blocked. A *Battlemage* Fireball, on the other hand, takes seconds to streak across the battlefield. A well timed Circle of Protection: Red can prevent a Fireball from striking. The original Channel spell was so powerful that it was actually restricted from Type II tournament play. The *Battlemage* Channel, however, although still considered to be a powerful spell, takes time to cast. This fact doesn't bode well. In effect, if the player takes twenty seconds to turn nineteen points of life into nineteen colorless mana with Channel, and takes another twenty seconds to make and launch a mega-Fireball, the computer-controlled wizard will nail the player with a Prodigal Sorcerer for one life point and win the game.

Magic's Lord of the Pit requires the sacrifice of a creature during every turn's upkeep phase. The creature sacrificed is chosen by the casting player. This is far from the case in *Battlemage*, where Lord of the Pit eats a creature every twenty seconds and in random order! The casting player has no say in the matter.

Magic fans and novices alike are advised to construct assorted tomes, then try them out in the Duel Mode. For instance, the Tome "All Lands" contains no spells whatsoever and leaves the wizard helpless, thereby permitting the player to cast spells at his or her leisure.

Hidden throughout the game are new cards inspired by the Mirage expansion set, and eleven bonus Tomes of Magic (including the exclusive epic, *The Antiquities War*) which relates the history of the *Magic* universe and contains helpful strategy tips important for winning. The best



One of the territories in Coronador is a beautiful island.

part is, all the cards and items change each time the game is played. Winning through a dialogue thread demands a different approach every time the player changes wizards.

The game's most outstanding feature is the Campaign Mode; a turn-based strategic contest whereby the player must accumulate magical artifacts and spells to conquer the thirty territories of Coronador. During the Campaign, the player may encounter over ninety non-player characters (NPCs), who either cut deals or challenge the player to magical duels. Many of these encounters are threaded with fully interactive dialogue. Clever players can zip through these threads and pick up cards, summoning spells, enchantments, instants, interrupts, artifacts — and dinero, a.k.a. silver Taels.

In Campaign Mode, the player may save a game at any point. Therefore, a player can try out different Campaign strategies, and just reload any of the saves if one or the other fail. The animated landscapes in Campaign Mode are absolutely gorgeous. For example, one is a shimmering, foam-flecked river, flowing over several falls through a breathtaking mountain landscape. Each of the thirty territories in Coronador features a different, but equally attractive, animated landscape. It's worth playing through the Campaign just to look at all of the pretty pictures!

If players find the computer player a tad difficult to overcome, they can always choose to play other human players in any

of the Multiplayer Modes. Players may Duel with up to three other players via a local area network, modem or the Internet.

In general, *Battlemage* tells a terrific story, is well-conceived, competently implemented, and challenging to play. However, it may be hard on novices, and a wee bit strange for *Magic* fans seeking a quite literal translation of the turn-based card game. Learning how to Duel in real time can be frustrating, and demands hours of study and practice. There are no variable level buttons, no online tutorial to delve into, and the printed documentation is woefully inadequate. Even so, persistent beginners willing to put in the time should enjoy this fast-paced, highly original and exciting adaptation. It's just unfortunate that Acclaim hasn't done more to help players navigate the steep learning curve. **CBC**

OVERVIEW

HITS: Campaign Mode is a winner. The landscapes are knockout gorgeous.

MISSES: Real time may be too strange for *Magic* fans and Dueling too difficult for novices to learn.

THE LAST WORD: A fast-paced, highly original and exciting adaptation with a steep learning curve.

Ratings

Dollar Value	25
Playability	20
Originality	5
Graphics	20
Sound & Music	8
Physical Components	8

OVERALL
86



Strategy /
Wargames

REVIEW

Medium: CD-ROM
Developer: Maxis
Telephone: 800-33-MAXIS

Supports: DOS or WIN 95
Publisher: Maxis
Website: www.maxis.com

Marble Drop

by Steve Honeywell



LEONARDO da Vinci's legacy brimmed with unrealized plans; he envisaged helicopters, parachutes, submarines and about a thousand other

inventions well before his time. According to Maxis, some recently discovered parchments belonging to the Great Master have turned up, adding *Marble Drop* — a series of marble-based kinetic puzzles — to his list of unfinished projects.

The concept is simple enough; a group of colored marbles must be placed in funnels which then launch the marble on a twisting (sauntering, swirling, ricocheting, whichever you prefer) trajectory down a series of convoluted paths, and into a tidy group of collection bins located at the bottom of the puzzle. Fill up all the collection bins in the proper order, and you move on to the next level. As you might expect, blue receptacles will only accept blue marbles, red with red, *ad nauseum*. Landing a green marble in a slot meant for a yellow marble destroys the marble. Points are awarded for getting a marble home safely as well as for triggering various targets along the path. Those marbles that make it to the proper bins are returned to the player when the puzzle is solved. Players can spend a few points to purchase additional marbles to replace the innocent casualties of puzzle conflict.

Sound simple? Yeah, right. If the puzzles consisted of nothing but ramps, finishing all 50 puzzles would take an hour. However, a number of traps and gizmos have been added to make the paths more treacherous. New devices are added every few levels, demonstrating the joys of gates, pendulums, teleporters, painters, splitters and too many other nasty toys to succinctly mention here. As Leonardo's disciple sends marbles down the path to the awaiting bins, there comes a rapid sense of realization; the marbles, through their journeys, change the landscape of the puzzle. That rail that led straight to the green

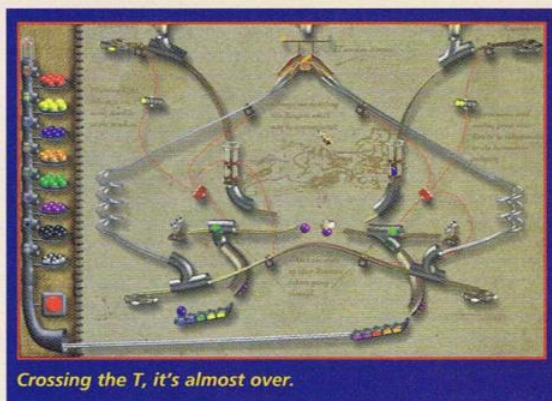
bin at the bottom of the screen might now lead to another bin. Or off the screen. Or into an endlessly repeating loop.

So, sedate planning and careful thought are the first orders of business. Fortunately there's no time limit, so players can spend as much time as they want contemplating the path and type of marble to be dropped. After a couple of botched drops, players will spend some time trying to chart the path of a marble as it emanates from any of several starting points to the various receptacles. Oftentimes, that's easier said than done.

The game is interesting in a lot of respects. While gameplay tends to be slow and thoughtful, often the action on the screen is intense, at least by puzzle game standards. Immediate comparisons will be made to *The Incredible Machine*, but only for a fleeting moment. *Marble Drop* has little in common with any previous kinetic-based puzzles. The player's interaction is limited to dropping marbles in a pattern and, if necessary, buying replacements. The puzzles themselves process the results, however arcane they might be.

The graphics — while simplistic — are very clean and fresh-looking. Each puzzle features a backdrop that highlights the various tools and devices on the level, along with some accompanying notes from the alleged Leonardo. The sound effects are fairly rudimentary, but well done nevertheless. The musical accompaniments which are triggered by a correctly-dropped marble are short and highly reminiscent of period music. Curiously, the pieces tend to overlap one another when the player simultaneously completes a series of tasks.

There are, however, issues which need addressing. After a puzzle is solved, it takes what seems like an eternity before the screen switches, first to a result screen and then to the next puzzle. By eliminating the transitional screen or speeding up the



Crossing the T, it's almost over.

pace, the could have been alleviated.

Another problem is that the puzzles can be played in any order. So a player could conceivably play the first puzzle, then skip over the rest to the final challenge. This means that the player can move on when a particular puzzle proves to be difficult. It also permits the player to go back and replay older, previously solved puzzles, receiving additional points for his efforts. Players who find their supply of marbles running desperately low need only return to the first puzzle, solve it, and in the process purchase a few dozen marbles with the points earned. It would be much more challenging to prevent the player from gaining points from previously solved puzzles.

Regardless, *Marble Drop* is innovative and entertaining, certainly dynamic enough to rise above its minor faults. 

OVERVIEW

HITS: Original ideas and good execution.

MISSES: Players are able to replay puzzles to boost their scores.

THE LAST WORD: Had to argue with a good idea executed well.

Ratings

Dollar Value	28
Playability	19
Originality	10
Graphics	17
Sound & Music	7
Physical Components	6

OVERALL
87



action

REVIEW

Medium: CD-ROM
Developer: 7th Level
Telephone: 972-498-8053

Supports: WIN 95
Publisher: 7th Level
Website: www.7thlevel.com

G-NOME

by Samuel Brown Baker, II



POWER, VIRILITY, DOMINANCE...

...the "Hunt"; that's why we play these games. Recreating a super-mythic

page from our past, we don suits of armor, carry guns, kill strange creatures and seek one another out in dark corners to commit token murder. What greater extension of our persona or assertion of utter dominance could there be than strapping on 50 tons of poly-alloy and striding across the battlefield in search of new prey?

G-NOME is the latest in a short list of *MechWarrior* clones, but, in computer games like movies, we only notice copycats when they're bad. Considering the large number of titles and genres in existence, it would be nearly impossible not to copy somebody. Even ground-breaking games such as *DOOM* could be considered clones of, oh, *Wolfenstein 3D*.

This game is a sort of "*MechWarrior*-in-a-drum." Unlike similar games, there is no facility to design HAWCs (Heavy Armor Weapons Chassis) or configure your compadres' equipment. Instead, combat boils down to a quaint "come as you are affair." Sometimes, you don't even have a HAWC to hang a hat on. Certain missions require that you leave the warm confines of a HAWC behind, instead ordering your fragile hide to hightail it through the grass, dirt and snow to capture an enemy structure or HAWC.

Players are cast as Joshua Gant, an ex-Special Forces sergeant, who continually experiences flashbacks of an earlier botched mission. Now, in order to dispell any lingering doubts regarding his failure while simultaneously assisting mankind, Gant must crawl back into his once comfortable cockpit and settle some old scores.

The manual bodès well, a pleasant change from the seemingly prevalent trend toward producing thin, CD-like Cliff's Notes. The guide provides a good description, outlining terminology and game play, as well as offering complete



Pedestrian soliders use rifles and GASHRS with G-NOME.

information on all of the vehicles and structures contained within the four power groups. What a relief to be able to look up opposing forces in a tactile manner, rather than having to execute the usual "recon by death" maneuvers required until a hint book appears on store shelves.

"G-NOME frequently felt more like a rail-shooter than a mechanistic robot sim."

The introductory sequence entails having to watch a black and white flashback episode. Next, a screen pops up — seemingly torn from the set of *Dateline* — which details the mundane options of saving, loading, configuring, sound, music and adjusting difficulty settings. Besides a full suite of multiplayer options, players may choose to step into training missions,

instant action missions, or the campaign game which contains over 20 missions.

Once a mission is selected, players are provided with a mission briefing (I really enjoyed the different voice actors, especially the Aussie), then lope off into battle. Rather than choosing a HAWC, players commence the mission in either a pre-determined vehicle or on foot, giving new meaning to the term "carjacking."

So far as I was able to tell, any vehicle or installation may be hijacked if certain parameters are met. Players are only limited by the number of GASHR (Gas-Assault Heavy Rifle) rounds they start out with. GASHR rifles exert a peculiarly weird effect; once fired they eject the opposing pilot from their vehicle, leaving the vehicle vacant and at your service. Given enough time, players can even steal their opponent's IFF codes, permitting them to impersonate an enemy pilot.

Each vehicle carries from one to four weapons, while gun/missile turrets contain just one. Pedestrians possess two weapons; a rifle of some kind and their GASHR. Units and structures are protected by armor, along with energy gauges which monitor shields and weapon recharge status. Weapons come in three types; missiles,

cannons and energy weapons. Energy weapons are best employed to whittle down shields, since guns and missiles, although inflicting more damage to armor, face ammunition limitations.

Sound effects range from poor to good. The best sounds — other than the voice acting, which was very good — were for breathing while in the pedestrian mode. The sounds for the HAWC engine and movement were engaging, while the music helped to enhance the atmosphere.

The graphics and animations for the various HAWCs were entirely convincing, their fluid motion somewhat unnerving. Aesthetically, vehicles and structures were barely adequate, and the terrain badly pixelated which unhinges game play. Certain vehicles exhibit much the same pixelated malady, though their constant motion serves to mitigate the effect. Structures appeared more artificial than believable while the terrain looks blocky, with little attempt to blend or smooth out the rough spots.

After playing through the training missions — which does a good job of shepherding the player through the many situations and tactical aspects of play — I started a campaign game in easy mode, expecting to up the difficulty settings once I had a few missions under my belt. I'm sorry to say that I never had enough success with *G-NOME* to feel comfortable ramping up the difficulty level.



Even though foot soldiering was relatively easy, HAWC engagements were anything but. Although running around on foot was a piece of cake — opposing foot troops can't hit the broad side of a HAWC with a tac-nuke — it was nonetheless boring. Line up a target, close to within 100 meters, drop to a prone position and start shooting. Once you delineate a hit, continue to hose down the target until the screaming stops. The whole process takes several seconds too long, and is tedious to resolve.

Dealing with HAWCs and other large, gun-wielding adversaries is a much more exciting yet frequently short-lived experience. Zigzagging towards a HAWC, I tried to get within range to use the GASHR. Time and again, this maneuver usually met with dismal results, as my pilot died by fire or succumbed to multi-ton stomping. While not altogether surprising, what I didn't expect to see was how difficult it was to kill or stomp an enemy pilot. I found the best technique was to eject



Vehicle Combat is far from subtle.

from my HAWC, kill the annoying pest, then climb back in — hardly a realistic approach for such a mammoth game as this.

Vehicle combat is far from subtle. While vehicles can torso-twist, many times you'll be situated in a vehicle that doesn't permit it. Moreover, fragging your opponent as quickly as possible requires that the vehicle stop moving, rendering maneuver an all but moot tactic. Other problems abound. Weapons aren't sighted on a fixed point. If a missile fires from your HAWC's port-side batteries, it will remain heading abeam, missing the target until you correct your aim. Energy weapons are of dual-mount design, so you can bracket your target or hit it with a single beam. Auto-targeting is available, but useless since it brackets the enemy's vehicle unless he's as good as on top of your mech.

Conversely, computer-controlled vehicles and turrets have little trouble hitting you with everything they've got. When you consider that there are no provisions for random placement of forces, I think you'll agree that the typical mission leaves little margin for error.

Frustratingly, players can save only after the completion of a mission. This requires that the gamer replay the same mission over and over, retracing their steps until they finally fulfill the mission requirements. There is no branching story line, no room for inventive tactics, only tedious and repetitive play.

While waypoints can be configured and

an autopilot mode exists, the autopilot insists on taking the shortest route, even when that route takes the mech through hillsides and over dales. While there's lots of terrain, unless it is perfectly flat terra firma it can't be traversed. *G-NOME* frequently felt more like a rail-shooter than a mechanistic robot sim. Seldom is there much choice in route; the terrain channels advance and retreat, and except for traveling on foot, there is no way to use terrain to the utmost advantage. Ducking behind a building or sighting behind a crest line simply wasn't a credible option.

"Easy" should be just that; easy for the experienced gamer, allowing newbies to gain some measure of confidence before being challenged by the game's full scope. Instead, *G-NOME* leaves newbies in a state of confusion, and old hands wondering "why?" Overall, this game is restrictive, limited in concept and restrained in execution. The next *MechWarrior* it's not. **CDE**

OVERVIEW

HITS: The vocals and manual are professionally handled.

MISSES: Boring and difficult game play completely overwhelms and spoils the few good features.

THE LAST WORD: Couldn't delete this from my hard drive fast enough.

Ratings

Dollar Value	5
Playability	10
Originality	6
Graphics	10
Sound & Music	5
Physical Components	8

OVERALL
44

Counterpoint

A rebuttal to G-Nome review

by Dan Donahue
Senior Software Engineer



Whether he was under a strict deadline and unable to play *G-Nome* for any duration of time, or whether he brought to the table preconceived notions of what *G-Nome* should or should not be, Mr. Baker revealed in his review a misunderstanding of the features of the game that make it much more of a "thinking man's *MechWarrior*" than he leads his audience to believe.

Criticisms like having to watch the opening cinematic, and disliking the options feature are silly. You can skip past the cinematic by pressing the spacebar, and is it not beneficial to have the ability to configure the game according to your machine and personal preferences? These are standard options that many gamers would deem important to include. By using subtly misleading phrases and hyperbole instead of accurate descriptions, he masks his misunderstanding of the game.

While the article takes great measures to bash the gameplay of *G-Nome*, it also reveals a misunderstanding of even the basic mechanisms that make *G-Nome* unique from other games. The reviewer mentions that opposing foot soldiers "can't hit the broad side of a HAWC...". Entirely untrue; they often GASHR you out of your vehicle, especially if you are moving too slowly.

Also described in detail is the prolonged difficulty of killing a giant HAWC — while on foot — using your hand-held rifle. Common sense dictates that perhaps there are easier ways to kill a HAWC. Apparently the reviewer did not understand that the preferred method of engaging enemy HAWCs was from within your own HAWC. Perhaps this is why he got stomped so often.

As well, the reviewer was frustrated by the difficulty of stomping his enemies. If

your scope is adjusted to view the world from outside the HAWC — using an external camera — stomping is suddenly both easy and eerily gratifying.

Once inside a HAWC, the reviewer found effective combat difficult unless he stood still. Unfortunately this is one of the quickest ways to lose an engagement, as he apparently found out many times. The fact that some weapon mounts do not swivel or pitch with the HAWC's torso only reflects the realism that went into the modeling of these giant metallic beasts. Practical physics dictate that every weapon can not be mounted on a single actuated arm.

The reviewer apparently expected a

the lack of intelligent path planning, and the pixelation of nearby terrain. While both of these will be corrected in upcoming patches to the game, these are legitimate concerns in the current release. It is unfair, however, that these appeared to have completely overshadowed the rest of his game review.

Given the difficulty Mr. Baker encountered in performing the most basic tasks in *G-Nome*, it is not surprising that he found the game far too difficult even on the Easy level. To be fair, we did, indeed, intend *G-Nome* to be a more challenging game than its competitors. By combining unique capabilities (foot combat, ejection weapons, passengering, etc.) with more complex

world relationships (power plants drive meson towers and fences, shield generation facilities protect buildings, etc.), strategic and tactical elements have been added to *G-Nome* that are simply not found in other 3D action games.

The review completely and inexplicably ignored one of the greatest strengths of *G-Nome*: viz. multi-player capabilities. Unlike most games in its class, *G-Nome* shipped with full DirectPlay capabilities for up to eight players. Playable over modems, Internet, or IPX networks, *G-Nome* offers a variety of deathmatch, team deathmatch or

cooperative missions. Playing the single-player game is exciting, but nothing can match the adrenaline rush you get playing against seven human opponents, all of whom can use the dirty tricks made available by the unique capabilities of the game. I challenge him to join us in a multi-player game!

We are confident that if Mr. Baker had taken the time to fully examine more than the first campaign mission, or had attempted to play a network game, his review would have been far more credible, if favorable.



branching story line. *G-Nome* is not, nor was it ever intended to be, an interactive movie. The reviewer complains that there is no room for inventive tactics, which indicates that he failed to play even the second or third mission. Both of these introduce gameplay features unique to this game. In fact, even though the reviewer says that "ducking behind a building...simply wasn't a credible option," this very tactic is required to successfully complete even the third mission.

The reviewer correctly identifies some of the shortcomings of *G-Nome*, such as



simulation

REVIEW

Medium: CD-ROM
Developer: Interactive Magic
Telephone: (919) 461-0722

Supports: DOS or WIN 95
Publisher: Interactive Magic
Website: www.imagicgames.com

iM1A2 Abrams

by Alan Fusco

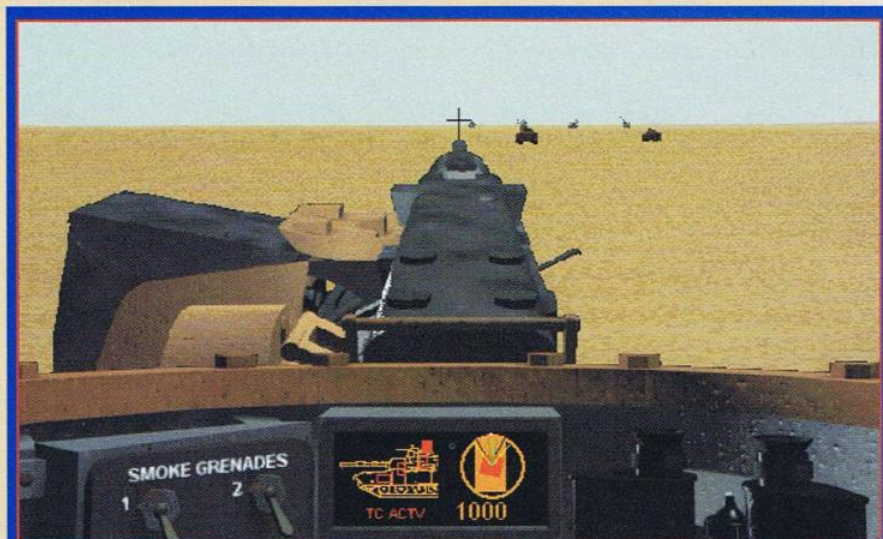


IN 1989, MICRO-PROSE released *M1 Tank Platoon*, which instantly met with amazing success. In its time, *M1 Tank Platoon* was the definitive tank

simulation, a position it has held even to this day. In 1996, MicroProse attempted to follow up *M1* with another tank simulator under the guise of *Across the Rhine* (AOR). It was, by all measures, a resounding flop. The gaming community was expecting another *M1 Tank Platoon* set amidst the familiar backdrop of WWII. AOR wasn't even a good simulation, much less the supposed strategy game it eventually became. Fortunately, "Wild" Bill Stealey and Arnold Hendrick, the designer of the original *M1 Tank Platoon*, have teamed up at Interactive Magic, working their "magic" once more. The result is *iM1A2 Abrams: American's Main Battle Tank* (*iM1A2*), the new and overdue next-generation standard in tank simulation warfare.

iM1A2 is a native Windows 95 application. Installation was a snap, but beware — it does use DirectX and Indeo drivers. I-Magic bucked industry trends by including both an online and a hefty, well-produced printed manual. While the manual doesn't include illustrations or line artwork of the vehicles portrayed in the game, this information is provided on the accompanying CD.

The introductory screen allows the player to select from either the QuickStart, New Campaign, Dossier, Configuration, Single Mission, Multiplayer and M1A2 History menus, or can invoke the resumption of a campaign already in progress. The QuickStart option is, for all practical purposes, an arcade-like shooter, but it does permit the player to become familiar with the mechanics of game play. The Dossier is used to set up the player's persona, including name, picture (yes, there are several women combatants to choose from), company and platoon name, and insignia. There are 11 pages of config-



The tank commander's viewpoint includes a top-mounted machine gun.

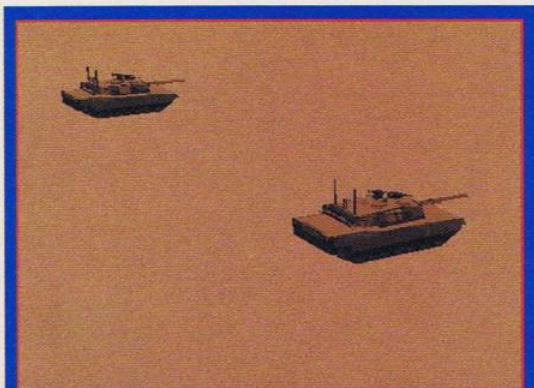
uration settings to wade through, affecting everything from graphics to degree of realism. The manual clearly states whether they affect the score, performance or simulation's difficulty. Personally, I didn't have any problem running the simulation on a P166 with all the graphics options enabled.

**"iM1A2 Abrams is
SIMPLY THE BEST
TANK simulation
currently available."**

Although the heart of the game lies with the Single Mission and Campaign games, I was particularly excited to see the wealth of options available in the Single Mission setup. First, the user selects from one of three theaters — Persian Gulf, Bosnia or the Ukraine — and then, on a scrollable map, selects an area within the chosen theater of operations. Once the

area has been determined, players can choose to play any of over 13 mission types. These include several modes of advance, reconnaissance and withdrawal missions. In addition, the time of day and weather can be modified; night actions are particularly intense affairs. The lines of departure for both the enemy and friendly units cannot be altered. In addition to fixed assets available throughout the course of play, each scenario permits the player to select certain mission-specific assets. These can include additional tanks, reconnaissance, infantry, artillery and air support units. Selection is restricted, though, constrained by both available resource points and certain vehicular stipulations. With limited intelligence enabled, some real trade-off's exist during this stage of the game.

The Campaign options are similar in scope to the Single Mission parameters, although they are far less flexible. Here, rank does afford its privileges. If "Captain" is selected, the player can pick and command all of the available forces from amongst the core Campaign Team. "Lieutenants", on the other hand, defer all campaign decisions to the computer-controlled General, although the player's



Tactics which work well in one theater may not be successful in another.

own platoon can still be issued orders.

Each mission type and player rank has a dramatic effect on strategy and tactics. The player will discover that he or she will have to split their attention between the tactical map and the first-person perspective delineated with the control of a tank. While it is possible to play the entire game by following the tactical map, it is much more satisfying to assume both roles. The tactical map allows the player to oversee every aspect of the battlefield including setting checkpoints, issuing firing orders, ordering artillery or aircraft strikes, and issuing formation and advance/retreat orders.

Once the player slithers into the tank, s/he can take over the tank commander's station — assuming either a buttoned or unbuttoned status, gunner or driver's position; the loader's position has been dispensed with. At any station, orders can be issued using either traditional keyboard commands, or a menuing system located at the bottom of the interface. Graphically, all of the stations are well done, eerily similar to actual tank layouts. In fact, I started to feel somewhat claustrophobic! The tank is equipped with Sabot, HEAT (High Explosive Anti-Tank), MPAT (Multi-Purpose Anti-Tank), STAFF (Smart Target Acquisition, Fire & Forget), and a coax machine gun. The tank commander has a neat little device called a "CITV" (Commander's Independent Thermal Viewer) which allows him or her to select targets, then hand off to the computer-controlled gunner or other assets for swift destruction. It's very gratifying to select multiple targets, then watch them get dusted one by one.

In general, I found the AI to be very good, realistically adjusting from theater to theater. I consider the missions in the Persian Gulf fairly easy to win.

However, the missions in Bosnia and especially the Ukraine were much more difficult to win. In addition, tactics which work well in the Persian Gulf aren't necessarily the tactics of choice in other areas. This is due primarily to the differing qualities of the troops, terrain and the type and peculiarities of armored and support units available in each region. The damage model is very sophisticated, taking into account such battle facets as weapon type, strike area, type of armor and

angle of impact. My guess is that the model rivals those found in many of the more traditional computerized boardwargames.

iM1A2 Abrams contains a suite of multiplayer options. Players can, if they so desire, compete against or cooperate with one another. They can connect via modem, serial cable, network (IPX or TCP/IP), or over the Internet using TCP/IP protocols. For local area networks, up to eight players can hook up, playing off a single CD. In addition, Interactive Magic is setting up a section on their Web page facilitating multiplayer *iM1A2 Abrams* games.

There is no doubt that *iM1A2* is the best tank simulation to date. Perfect, it's not, and I do have my wish list for additional features. First and foremost, the simulation needs a tutorial. While the tank controls are not particularly difficult to understand, the tactical map is another story. At first glance it is intimidating, complicated and not particularly user-friendly. A talk with Arnold Hendrick, the game's designer, clarified the various design constraints afforded by the tactical map. It turns out the tactical map is based largely on the actual system used by M1A2 tankers, which isn't very user-friendly. (Apparently, the programmers who designed and implemented the actual Abrams map display never read Alan Cooper's "About Face: The Essentials of User Interface Design"! Mr. Hendrick and his team had to implement some heady decisions about how to enhance the tactical map the PC world ordinarily takes for granted, such as actual terrain mapping. While I don't fault their execution, an in-depth tutorial or description on how to use the tactical map would've been welcome additions, especially for the simulation novice.

Secondly, I would really have preferred more managerial control over my tank crew and platoon. This was a wonderful feature of *M1 Tank Platoon* that seems to have been minimized here. In *M1*, players were able to choose which crew members they sought to promote, or which they would lavish awards upon. Personally, this nuance immeasurably helped to draw the player into the simulated world. Perhaps *iM1A2 Abrams* could expand its crew management functions, thereby adding another important element to what is already a great game.

Another facet that I would've liked to see enhanced is the Campaign mode. Frankly, I just didn't feel as immersed in the campaign as I probably should have. I would've enjoyed witnessing a more robust logistical component, such as supply lines and stores management.

Maybe it's all taking place behind the scenes, but I just didn't get any sense of involvement. Moreover, damage incurred during a campaign mission oddly didn't carry over to the next mission. All in all, the campaigns just felt like a series of linked independent missions. This isn't necessarily a poor aspect of play but, after getting used to more fluid models, I've just gotten spoiled over the years.

I should emphasize that none of these criticisms detract from game play. They are simply meant to be construed as a wish list, and should not dissuade anyone from purchasing this game. *iM1A2 Abrams* is simply the best tank simulation currently available. Sure, the game could have incorporated some additional features, but what has been modeled is already ample reason to go out and buy the game. All in all, nice job! 

OVERVIEW

HITS: Detailed simulation model, great single mission generation, interesting and varied theaters of operation, very good strategic planning options, a large, detailed printed operations manual, and a wide suite of multi-player options.

MISSES: No tutorial, sketchy details on how to interpret the tactical map view, and a campaign option that is rather static.

LAST WORD: The most accurate and detailed tank simulation currently available.

Ratings

Dollar Value	30
Playability	19
Originality	9
Graphics	18
Sound & Music	10
Physical Components	9

OVERALL 95

Medium: CD-ROM
Developer: Kesmai
Telephone: (919) 461-0948

Supports: DOS or WIN 95
Publisher: Interactive Magic
Website: www.imagicgames.com

Air Warrior II

by John P. Withers



KESMAI CLAIMS

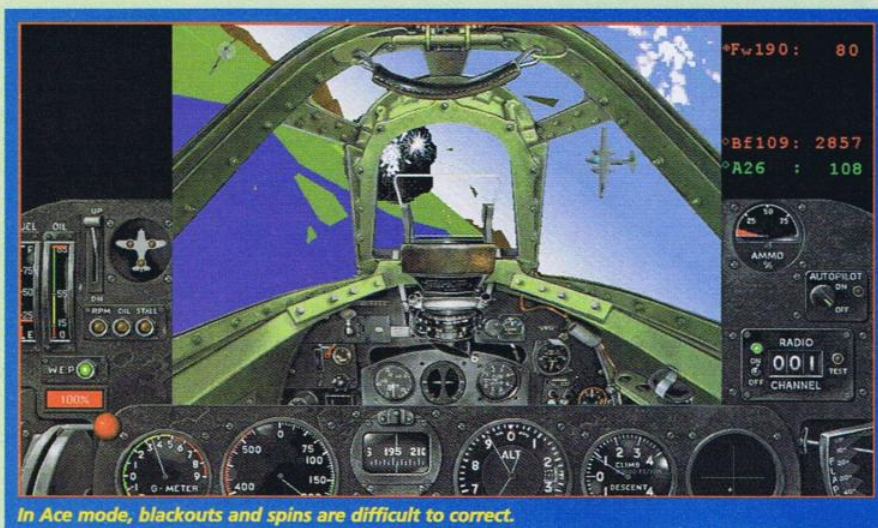
one of the longest pedigrees in online gaming's short history. Their games — including several text-based offer-

ings and *MechWarrior* — provided impetus for the GENie online service. For a number of years, these and other games boosted GENie as the broadest online gaming forum, much to the chagrin of other online service providers.

Online gaming no longer resides only with the commercial networks. Recently direct online gaming services using the 'Net — sidestepping the intermediaries — are appearing to hold the hottest tickets for the next year. Virgin, Blizzard and Origin, among others, seem to be leading the charge, vying for the online bragging rights to connecting millions of end-users.

Kesmai, recognizing the trend, hasn't been sitting on their laurels either. Within this heated climate, the company has plans to release a major upgrade to what is perhaps the most popular online flight simulation ever conceived: *Air Warrior* (AW). Over the last couple of years, *Air Warrior* has served as the *de facto* standard for cyber-pilots, satiating the hardcore and would-be aces the world over. Although some of the newer sims boast better flight models and are prettier to admire, only *Air Warrior* has permitted pilots — billeted across the globe — to form cyber-squadrons, dogfighting one another over the flak-filled virtual skies of WWII Europe. Also while other attempts have been made at online, large-scale flight sims, *Air Warrior* still retains its lead as the best going.

In the last year, Kesmai has greatly expanded AW's reach, signing partnering agreements with all of the major online services. Now available on Prodigy, CompuServe and America Online, as well as a number of Internet Service Providers (ISPs), AW has to date remained the dominant system of choice. With more and more



In Ace mode, blackouts and spins are difficult to correct.

companies eyeing the online dollar, though, it appears as if *Air Warrior* seemed destined to encounter some headwinds. That, folks, is where *Air Warrior II* comes in.

Air Warrior II provides features and depth of play that should keep Kesmai flying high for some time to come. First off, AWII now spans not only the WWI and WWII periods, but the Korean War as well. The sequel contains a number of new

"AWII now spans not only THE WWI AND WWII PERIODS, but the Korean War as well."

aircraft, including both subsonic and supersonic jets. Aircraft modeled include the first generation mach 0.9+ fighters, the infamous MiG-15 and the all-powerful F86-F Sabre.

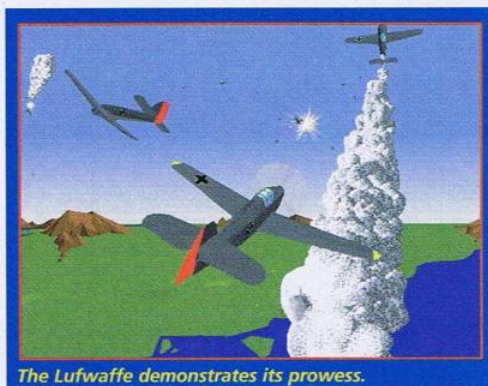
As far as the flight modeling goes, the new retrofitted engine appears to be quite similar to the original version. In general, I found the new engine as robust and real-

istic as its forbearer. While the vast majority of cyber-pilots will find enough sugar-coating to whet their appetite, serious grognards may take issue with some of the system's finer points. For instance, inducing spins is oh-so-simple to accomplish, and overly taxing to recover from. Curiously, factors such as Angle of Attack (AoA) and engine stall seemed rather pronounced. In our testing, it seemed that AoA and engine stall were induced far too readily to be precise.

Attention to detail has been lavished throughout the program. For instance, taking off in a Sopwith Camel can be frustrating to the uninitiated. Players expecting to noodle around in an inverted position will eventually realize that the fuel system and oil pumps will succumb to the effects of gravity all too easily.

Newcomers, afraid of AWII's complexity and realistic flight modeling, can still rejoice. Three different difficulty levels allow the game to be played by anyone from the most "ground-bound" novice to the serious expert. In Novice mode, I found it difficult to induce mishaps, while in Ace mode blackouts, redouts, spins, stalls and virtually every other sort of mind-numbing flight characteristic readily surfaced.

Graphically, AWII is still somewhat of a



The Luftwaffe demonstrates its prowess.

mixed bag. The introductory movies were well done, evoking a strong sense of imagery and period flavor. Likewise, background graphics were exemplary, ably replicating the airfield and various off-line staging areas. In-flight graphics, though, were less than glamorous. Graphically the game doesn't stand up to some of the newer stand alone products recently introduced, most notably Novalogic's *F-22 Lightning*. *AWII*'s in-flight graphics seemed more reminiscent of some older titles such as *Red Baron*, and generally didn't display all that much of an improvement over its predecessor.

If the install routine works as promised, *AWII* is very easy to set up and use. The main interface employs a clean, oversized airfield to get the gamer off the tarmac. Points of interest are clearly denoted, permitting the player to start a mission, join an online game, set up a modem-to-modem dogfight, embark on a quick start furball or adjust the game's settings. The *AWII* graphical user interface (GUI) is deliciously appealing, turning every game function into a simple-to-understand, step-by-step intuitive process. Although the manual appeared to be complete and well thought out, I felt that the player would probably have very little need to consult the manual once his or her craft was up and running.

AWII contains a myriad of different options to get airborne. The Instant Action mode is invoked as soon as the game loads up, plunging the would-be cyber-pilot into a randomly determined environment. No questions asked about theater of operations, side or aircraft preference. Enabling the IA option arbitrarily yanks a different aircraft from the hangar, wheeling out German, American or British aircraft at the computer's choosing. Other flight modes are also available in the Operations Room, permitting the player to select the theater and side of his choosing. After the theater

and side has been determined, players must choose from a database of available aircraft adorning one wall of the GUI.

The player may choose to fly in either a mission-based segment or sign up for the longer campaign game. Both assign a specific aircraft to the player, along with a predetermined set of goals he or she must accomplish. After landing, the player is then scored based upon how well they have lived up to expectations.

When it comes to intel, the airframe's informational screens provide a bonanza of data and other pertinent information. In addition to historical and technical information about the specific airframes found within the game, the players may also access various aircraft-specific strategy and tactics tips for each difficulty level.

AWII includes two excellent help modes to facilitate in-flight operations. A "Guide" — composed of various informational windows — pops up as required throughout the program. The guide displays pertinent data, walking a player — on a step-by-step tutorial basis — through the game, describing the methodology of getting the planes up and flying. In addition to this comprehensive tool, a player can press the <F1> key from within the cockpit, thereby calling up a list of available commands which control the aircraft. When you combine the intuitive interface, the finely-honed manual and the simplified help features, *AWII* readily becomes one of the most accessible flight sims ever crafted.

Although *Air Warrior II* can be played online, we reviewed a boxed version Kesmai shipped through a distribution agreement with Interactive Magic. Gamers who purchase the boxed version are able to log onto an online game, but may also play *AWII* offline, thereby avoiding any public humiliation or online frustrations. We recommend that players look into the offline capabilities included, using it as a dress rehearsal of sorts before the online balloon goes up.

There are, unfortunately, incompatibility issues at work here. *AWII* isn't backward compatible with the original *AW* system, so new users and current players may find this news a bit troubling. Kesmai doesn't foresee much of a problem because they expect that within the next twelve months *AWII* will quickly supplant *AW*. Although optimistic in their appraisal

of the gaming community, they have, however, no plans to force the issue, instead providing online support for both games in the foreseeable future.

Aries — a division of Kesmai responsible for implementing the backend architecture which links players together — has developed what they refer to as their "Aries 96" backend. With it, the system is capable of supporting upwards of 10,000 players in a single game. Moreover, using *AW* or *AWII* costs absolutely nothing to those players hooked into an ISP or online service piggybacking Kesmai's games. If America Online (AOL) backs up their continued claims and flat rate usage policy, players will be able to log on through their systems and play *AW* or *AWII* at a very affordable rate. And even if AOL backs off, Earthlink connections should still provide the very same benefit.

Unfortunately, the game isn't entirely bug-free. In our testing — on three different test bed systems — *AWII* failed to install properly on two of them, and the Tech Support personnel for Interactive Magic wasn't able to help me get the game going. A strange problem indeed, since late betas we looked at worked perfectly on each of these systems.

If our experience serves as a guide, when the game does install properly it plays flawlessly. Conversely, if you can't overcome the technical problems, then chances are you won't be able to get the game to work at all. By the time you read this, patches should be available, confirming my belief the problems are widespread and are still being evaluated.

Despite the installation problems, *AWII*'s fun-filled features, eminently playable style, and low cost, strong backend server technology continue in the finest traditions of *AW*, soaring to new heights where others still aspire. **COC**

OVERVIEW

HITS: The best in online connectivity, easy to play, good help systems, good assortment of airframes.

MISSES: Buggy on many systems, uninspiring graphics

LAST WORD: An excellent update to the most popular online flight sim of all time.

Ratings

Dollar Value	30
Playability	20
Originality	3
Graphics	15
Sound & Music	7
Physical Components	10

OVERALL
85



simulation

REVIEW

Medium: CD-ROM
Developer: Rowan Software
Telephone: (800) 216-9706

Supports: DOS or WIN 95
Publisher: Empire Interactive
Website: www.empire-us.com

Flying Corps

by Alan C. Rusco



EVEN AFTER MANY YEARS of continuing advances in graphics and raw processing power, *Red Baron* has remained the king of World War I flight simulators. Sure, others

have tried to best it, but for some reason no one has been able to replace the magic of Dynamix's pride and joy. That is, until now.

The new king of World War I simulators has emanated from none other than English-based Rowan Software. In the past, Rowan has built a spotty reputation here in the States, producing a series of extremely buggy graphic engines, horrible installation routines, less than realistic flight models, and lackluster game play. All of these problems come to an end with *Flying Corps*! To put it mildly, *Flying Corps* is simply stunning. From graphics to the game presentation to the historical campaigns and, yes, even to the flight dynamics, *Flying Corps* exceeds all of my wildest expectations and then some.

The first impression a player usually has with a game is the packaging. Empire pulled out all the stops with this one. The package includes a 246-page reprint of the 1918 flight manual entitled "Practical Flying," by W. G. McMinnies. This manual was actually used to train pilots, and provides historical background as well as a lot of useful flying information to acquaint the player with the mechanics of World War I stylized flight. Also included are a Technical Supplement, eleven full-color maps of the campaign areas, and a nicely rendered seventy-five page color manual explaining game play, tactics, campaign history and aircraft characteristics. The only thing missing is a card containing all the keyboard controls. While these commands are found in the back of the training manual, it isn't as convenient to use as a separate command card.

Installation was relatively painless. Separate installation routines are supplied for Windows 95 and DOS. I didn't try the DOS



Flying Corps is simply stunning!

installation, but the Windows 95 installation was straightforward. Rowan even included a warning concerning DirectX, allowing you to bail out of installing the DirectX drivers if you had problems with them, or have already installed them to

here. Loading times were so long that I started three instances of the game before I realized what was happening. (Yes, I was beginning to curse Rowan for yet another buggy installation program.) After re-installing the program by choosing a medium installation routine (approximately 38 MB in size), I experienced no problems.

Once the game starts and the player sits through the opening sequence, it's time to check out the flight model preferences and toggle between the various settings.

The improved flight model can take into account some interesting effects: torque, wind, gyroscopic, slipstream, spinning, bomb weight and drag, blackouts and white-outs. In addition coordinated rudder, power boost, collisions, limited ammo, vulnerability, and spinning compass effects can be turned on or off at the player's discretion. Strangely, the only setting that seems to be omitted is the ability to invoke gun jamming.

Do any of these toggles really affect the fight model? Yes! The flight model in *Flying Corps* tops any other WWI fight simulator currently on the market. It's so good that it may even rival the one found in *Flight Unlimited*! Each plane handles dif-

"Flight simulation fans, ordinarily satisfied with only the most exacting replications of REAL-WORLD FLIGHT characteristics, will no doubt be doubly pleased with those depicted in *Flying Corps*."

your computer. Although I've never experienced any misfortunes with DirectX drivers, others have, so beware. The only mistake I made was initially doing a minimum install. This was a BIG mistake. Learn from my pain and do not, under any circumstances, do a small install. Usually, I can get away with a minimum install since I have an 8x CD-ROM and a P166. Not so



Players can actually use the map to navigate over the battlefield.

ferently, depending upon the characteristics of central components such as the airframe and engine.

Gaining altitude takes a long time in *Flying Corps*, although a cheat key (<U>) is present to help the player's craft quickly attain higher altitudes. Wind gusts invariably shake and rattle the aircraft. Moreover, slipstream effects can make each plane difficult to control. The flight model even monitors the airflow around the wings on each side of the plane. An information line at the top of the screen — which can be toggled on or off using the <I> key — displays angle-of-attack indicators for both left and right wings. If the angle of attack exceeds 15, the plane will enter a stall or spin. Spins can be virtually insurmountable to overcome, especially at low altitudes.

Players will need to apply constant forward pressure to the joystick in order to maintain level flight. Essentially, this flight dynamic realistically portrays the heavy-handed characteristics needed to keep these early, tail heavy planes in level flight. Planes using rotary engines are especially difficult to fly. Just in case you were wondering, the sound effects match the flight model in accuracy and realism. Just make sure you turn the volume all the way up before taking off!

After start-up, I immediately chose a Sopwith Camel (call it the Snoopy syndrome), a plane that I thought I successfully mastered in *Red Baron*. In *Flying Corps*, it took a lot of concentration and effort to keep the plane aloft, especially during heated dogfights. All I can say is flight simulation fans, ordinarily satisfied with only the most exacting replications of real-world flight characteristics, will no doubt be doubly pleased with those depicted in *Flying Corps*.

The Scramble menu permits the player to initiate several types of training missions

for any plane desired. While nowhere near the typical tutorial found in most simulations, these missions do allow the player to practice flying, dogfighting, ground attacks, stalking and patrolling well before he or she actually signs up for a campaign.

The focal point of *Flying Corps*, though, is the four campaigns portrayed. There are two campaigns for either combatant, all of which take place in the embattled skies over France during the climactic stages of 1917 through 1918. Players opting to command the fledgling German air forces can choose the "Flying Circus" or "The Battle of Cambrai" campaigns, while the Anglo-Allied player can take to the skies in the "Spring Offensive" or "Hat in the Ring" campaigns.

All of the periods depicted are based upon various historical campaigns, oftentimes tied into the ground battles waged thousands of feet below. The campaigns strike up an excellent balance; mixing aerial victories (Flying Circus and Hat in the Ring), to squadron management and mission planning (Battle of Cambrai), to rising through the ranks of command (Spring Offensive). At first, I didn't much care for the varying nature of each campaign, sometimes bemoaning the missing mission planning element encountered in most of the scenarios. Later, however, I really began to appreciate the differing natures and goals of each campaign. After all, everyone isn't cut out to be a squadron commander.

The artificial intelligence (AI) is very good. While it doesn't approximate the eccentricities of a human opponent it is, nevertheless, challenging at the higher AI levels. For instance, a great many "easy kills" can still be racked up, since there are far fewer intermediate and advanced pilots taking to the skies. This is historically accurate. Likewise, the player won't witness a lot of aerial acrobatics by either side, instead watching various developing tactics wholly appropriate to the time periods portrayed. Some AI complaints that I have seen online have failed to take into account the fact that air combat techniques were still rather crude during this time frame. "Attack from above and then run away" was a common technique used by even experienced pilots. In flying this simulator, I was shot down more than once by a pilot using just such a technique.

How good are the graphics? Excellent. To sum it up, the scenery is not only beau-

tiful but functional. The ground detail is so clear that players can actually use the maps to navigate over the battlefield. There are troops, tanks, trucks, ground fire (I was damaged by ground fire in more than one scenario), houses, etc. Some people have even reported seeing flocks of birds, but I haven't seen so much as one. I've yet to see any troops in the trenches, but I must admit I don't like flying that close to the front lines. What's more, you can even choose a paint scheme and markings for your squadron during campaign play. In Windows 95, SVGA resolutions from 640 x 480 to 1024 x 760 are available. On my P166 with a fast graphics card, I received frame rates from 8 to 13 frames per second at 640 x 480 with maximum graphic detail turned on.



Is *Flying Corps* the perfect WWI flying simulation? No, not quite, but it's pretty close to that lofty goal. For instance, only padlock views are included; not a single fixed external viewpoint. Person-

ally, I enjoy using fixed external viewpoints and find padlock views somewhat disorientating, but I guess others hold differing opinions. In fact, Empire promises to put out a patch (probably by the time you read this review) to address this very problem. I would've liked to have noodled around with some more planes, a few more campaigns, an entire WWI campaign like the one found in *Red Baron*, and a mission builder. In spite of the advertising, there is no multiplayer option; however, a free patch containing this enhancement is promised. That's not much to gripe about, and some of these issues will be resolved in promised patches, and maybe even an expansion disk. All in all, I don't think the buyer can find a better World War I flight simulator on the market today.

COE

OVERVIEW

HITS: Great graphics, AI, campaigns and flight dynamics.

MISSES: No fixed views or mission builder. Requires a very fast computer for optimum playability.

LAST WORD: For those who have the computing horsepower, this is the WWI flight simulator to own.

Ratings

Dollar Value	30
Playability	20
Originality	8
Graphics	20
Sound & Music	10
Physical Components	10

OVERALL
98



REVIEW

Medium: **CD-ROM**
Developer: **Activision, Inc.**
Telephone: **(310) 473-9200**

Supports: **Windows 95**
Publisher: **Activision, Inc.**
Website: **www.activision.com**

Interstate '76

by Andy Backer



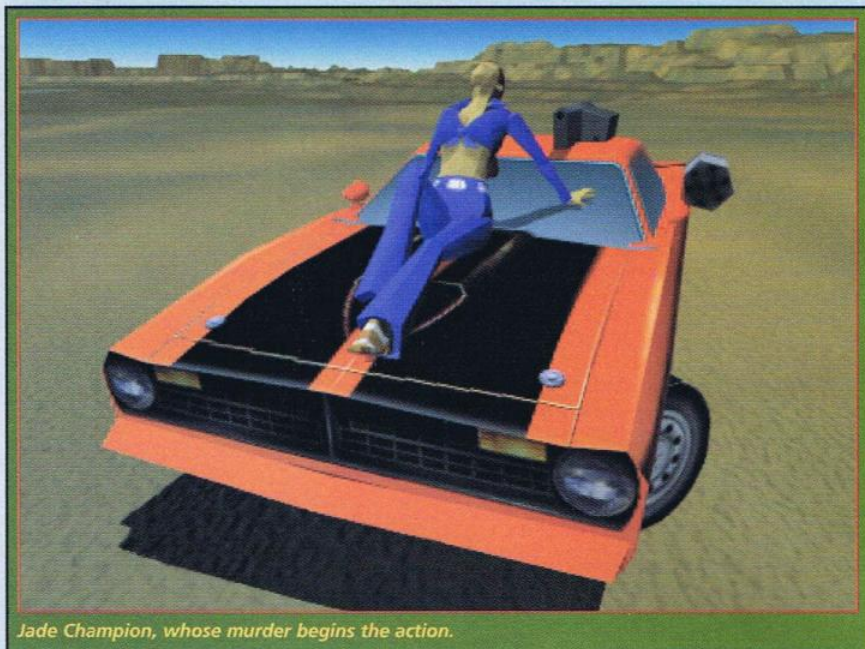
OBSESSION. *Interstate '76*, Activision's 3-D auto-combat simulation, quells even the most ardent car chase enthusiast's fervor, while concurrently cre-

ating a new computer-based breed all its own. At its core, *Interstate* profiles several exotically constructed, artillery-laden muscle cars, portraying both driver and driven as they trail one another on the dusty Southwest American roads of the 1970s.

Chase scenes are, after all, the bread-and-butter motivators which determine the making of many a Hollywood movie. Movies such as *Bullit*, *The French Connection* and *Cannonball Run* have indelibly immortalized the car chase, and everything there is to love about it. Since Activision recruits many of their top writers from Hollywood, it was perhaps only a matter of time before the company, so to speak, "cut to the chase."

The cars depicted are not only capable of rapid acceleration, braking, jumping, skidding, fishtailing and, yeah, barrel-rolling; they go well beyond horn-blasting, mounting an appealing mix of weapons and defensive measures. Instead of confining the driving experience to a mere *Derby Destruction* type of race track, *Interstate* allows the player to drive through fully rendered 3D terrain, complete with roads, small towns, riverbeds, hills and canyons. Its viewing perspective not only adjusts to released impediments such as land mines, but natural obstacles including water, mud, gravel and potholes. Finally, Activision has wrapped the game up inside of a snappy storyline and animated it all — comic book style — using multiple "cinematic" camera angles to maximum effect.

The game's hero and the player's alter ego is Groove Champion. Groove and Jade are the son and daughter of Nick and Tammy Champion (Nick, a four-time winner at Daytona and Tammy, a former Ms. America). Groove also races but his sister



Jade Champion, whose murder begins the action.

has always been a shade faster, inheriting her parents' best automotive traits. However, Jade — while leading a secret life as an auto-vigilante — uncovers an OPEC-directed plot to topple the American economy and is murdered by terrorist Antonio Malochio in the process. Groove seeks to avenge his sister's death and joins the vigilantes. Taurus, Jade's partner, signs on

**"Interstate 76 is a FULLY
REALIZED auto-combat and
driving simulation."**

with Groove and together they plan on righting a serious wrong. They and Skeeter, their odd little mechanic, set off with a score to settle and a few heads to crack.

If the player so chooses, he or she can elect to play the seventeen-mission cam-

paign game, a.k.a. "The Trip." Of course, the player must first master the two M60 machine guns and flame-thrower mounted on Jade's 425 horsepower '72 Picard Piranha. Not to worry, though, Jade herself tutors Groove via the auto's tape deck. I guess she had anticipated her death, and prepared the tape well in advance. For additional training, Taurus takes Groove on an escorted mission, talking Groove through the mission via radio from his lead auto. The player must follow Taurus over

several twisting back roads and, on command, blow up a phony fireworks stand at roadside. Groove must then accompany Taurus on an emergency rescue mission to defend a diner from terrorist autos. At the end of the scenario, Groove meets Skeeter, and is briefed on proper auto salvage techniques and maintenance. On his next mission, Groove is asked to take a speed run through a trail that circles through the surrounding hills, and is subsequently taught how to jump his auto over an open canyon.

The scenarios get more difficult after-

wards and while Groove, Taurus and Skeeter would like nothing better than to quickly avenge Jade's death by killing Malochio, their primary quest is to first stop his gang from blowing up the largest oil reserve in the Southwest. At the end of each scenario Skeeter — at the player's instructions — salvages, repairs, installs or stores items from the enemy vehicles they destroy.

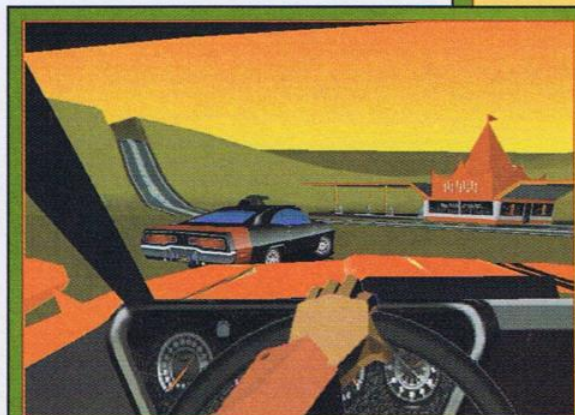
The gamer may elect to play in the game's individually-based or free-for-all mode, which incorporates single- or multiplayer options. Players also may compete on a one-on-one basis via a modem hookup, or rally with seven other opponents over a local area network.

There are fifteen additional individual scenarios the player may choose from if he or she doesn't want to participate in the campaign. Players have their choice of thirty different vehicles to drive (which can be painted in sixty different combinations), and they may further customize them by selecting different types of engines, brakes, suspensions and wheels. Other "showroom" options include radar jammers, nitrous oxide, blowers, X-Aust Brakes, Destructo-Bumpers, concealed hub spikes, curb feelers, mud flaps, heated seats and, er, cup holders. A wide array of weapons are also available including missiles, rockets, mortars, cannons, machine guns, flame throwers, gas launchers, grenades, cluster-bombs and napalm hose. Even oil slicks, smoke screens and land mines can be used. Moreover, players can wield hand-held weapons from inside the car brandishing such weapons as .45 auto-matics, shotguns and Uzi submachine guns.

Interstate features an especially sharp AI that automatically adjusts gameplay according to vehicle size, road conditions, traveling speed, collision impact and weapon capability. During the game, players receive mission objectives and learn about their opponents through 3D animated cutscenes, rather than the traditional text-based shell. By incorporating cinematic effects with the real-time 3D elements, the graphic line between the action scenes and the story is intentionally blurred. To maintain this illusion, a less

demanding style of animation was employed. The characters' faces are bereft of lips, which may seem surreal but is stylistically intriguing, effectively doing away with the need for audio-lip synchronization.

Interstate's outstanding features are its incredibly



Your mission, should you decide to accept it, is to prevent the destruction of the southwest's largest oil reserve.

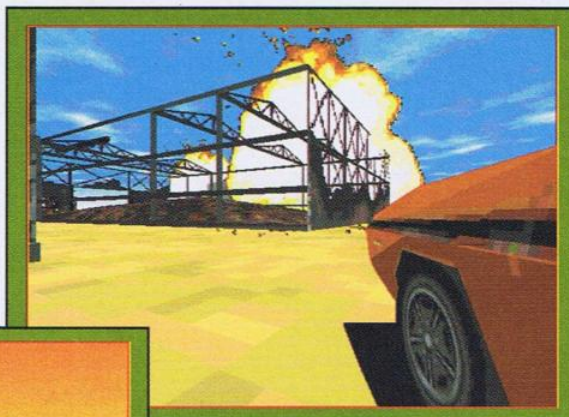


versatile game engine, created originally for *MechWarrior* and modified especially for *Interstate*, and its incredibly atmospheric and exciting campaign mode. The graphic look may be comic book-like, but that doesn't prevent the characters from having believable personalities that come

to life during the action-packed scenarios. Taurus' commanding voice booms over the speakers while machine guns rattle, wheels whine, and funky music drives the pace. The player can almost smell the fumes of gasoline, and feel the heat from automobiles as they explode all around him. It's everything a heavy action game should be, full of the sound and fury of men and machines in duel-to-the-death combat.

The designers have managed to transfer the thrills of fighting with Mechs in *MechWarrior* to fighting with muscle cars in *Interstate*. They have provided a campaign mode that serves to train the player as well as entertain him. Each scenario is rife with opportunities to help further improve the player's driving and combat skills while containing some interesting game-related surprises.

Since the product tries to be so many things, the gaming public may not know how to adequately interpret the game.



Interstate '76 is not a very descriptive name, and the game itself is neither fish nor fowl. It's not your usual shooter, it's not *Destruction Derby*, and it's certainly not your average race car simulation. It's a combination of several genres, and that may underscore a marketing dilemma. Best defined as "*MechWarrior* on wheels," Activision has gambled that its public will purchase an action game that doubles as an auto-combat simulator. If that was their intent, the designers have lovingly fulfilled their wishes.

Interstate's drawbacks are thankfully few; the earthy dialogue may be oriented too far towards a mature audience, and the arcade-like action skills needed to play the game — although readily accessible to the average joystick jockey — may be initially too demanding of beginners. Other than that, *Interstate 76* is an awesome, fully realized auto-combat and driving simulation, which hangs on a remarkable, if humorous action-oriented plot about vigilantes and their insatiable desire to chase things. Hmm, some obsession. **COC**

OVERVIEW

HITS: Plenty of arcade action, a simple but effective story line, bizarre characters, and great classic cars to drive.

MISSES: Faces without lips are weird. Some of the dialogue is unnecessarily adult in content. The arcade features may be too difficult for some players.

LAST WORD: If *Interstate 76* is one of the last games to be produced, then I can walk away proud.

Ratings

Dollar Value	28
Playability	18
Originality	10
Graphics	19
Sound & Music	10
Physical Components	10

OVERALL
95



REVIEW

Medium: CD-ROM
Developer: Legend Entertainment
Telephone: (800) 658-8891

Supports: DOS or WIN 95
Publisher: Take 2 Interactive
Website: www.legendent.com

Callahan's Crosstime Saloon

by Shane Mooney

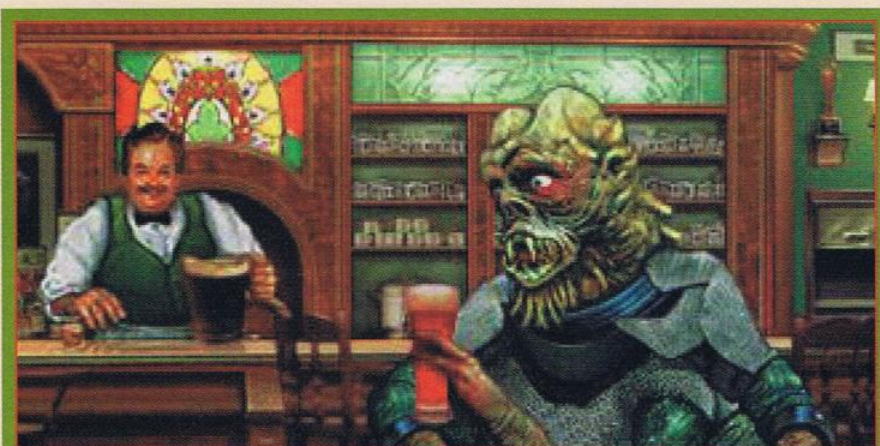


HAVING JUST SEEN THE RE-RELEASED VERSION OF *STAR WARS*, I was reminded of one of its more memorable scenes. C'mon, you remember, the bar scene which was host to

every sort of alien creature representing what seemed like the entire universe, little do most people realize that, at about the same time George Lucas was putting the finishing touches on Chewbacca, Spider Robinson, the sci-fi writer, was creating a similar festive, xeno-friendly saloon that didn't require you to travel to a galaxy far, far away. Nope, all you had to do was steer down Route 25-A (Jericho Turnpike) in Long Island, New York. At *Callahan's Crosstime Saloon*, everybody knows your name, no matter what planet, dimension or future world you may be from, and if they don't, they're anxious to have you tell 'em your troubles.

Legend Entertainment has brought the three-time Hugo winner's work to the PC, and after having spent more than my fair share of yakking with the not-so-locals and throwing back a couple of cold ones, I must admit that this is one of the funniest, most original adventure games to come down the pike in a long time.

Designed by Josh Mandel — the very same guy that designed Freddy Pharkas, Frontier Pharmacist — *Callahan's Crosstime Saloon* is a truly entertaining experience, injecting new life into a tired genre. The intro lets us in on the cosmic goings-on, detailing the plans of the Powers That Be to "right-size" the universe — by eliminating the frivolous Milky Way galaxy, sort of an Endowment For The Arts project on a slightly larger scale. The Curator of the Galaxy has been told that unless something can be found of redeeming value, costly funding will be cut and the galaxy promptly destroyed. With the knowledge that neither DNA nor Saran Wrap qualifies as



Squish's Wishes: Helping the alien "Squish" find absolution for his species' sins is one of 6 mini-adventures you'll play in Callahan's.

"redeeming", the Curator stops into Callahan's to forget his misbegotten woes.

The perspective then switches to the player/character. Jake Stonebender, folk singer extraordinaire (yes, by his own admission, he's a babe magnet — he is, after all, a folk singer). His long hair and casual attire betray his empathetic and intelligent personality (not to mention his wicked sense of humor). As Jake, the player is one of the more "normal" characters

moving around in *DOOM*-like fashion, the player's view point rotates a full 360°. Players can also click on the various objects and characters socializing throughout the room. The player is always given the option of "Looking At" to get more details of what's going on, and if he or she can do more, players will see more choices such as "Talk To." Virtually everything can be clicked on, and every character has some curious background, anecdote or amusing conversational diatribe to go along with him.

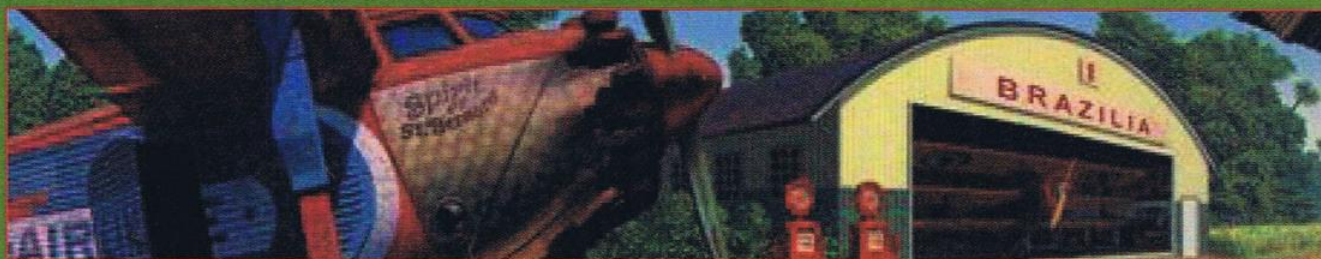
In Callahan's every night is Theme Night, such as Puzzle Night or Pun-Day. After solving the puzzle on Puzzle Night, players not only win back their tab (getting some much needed cash for their inventory), but also progress into the meat of the game, which unlike most adventure games is broken up into 6 different mini-adventures.

Players will at first have three crucial conversations that will invoke various travel-related mini-adventures. In one adventure, Josie, the Time Cop, will see the player off to Brazil, in an effort to stop the clear-cutting and extinction of a rare Cacao Tree which produces arguably the best chocolate in humankind's history.

"This is one of the FUNNIEST, MOST ORIGINAL ADVENTURE games to come down the pike in a long time."

in the whole crowd at Callahan's, a crowd that consists of time-travelers, multi-tentacled aliens and even vampires, all of which are welcomed as much as Norm was embraced at Cheers.

The interface is pretty unique. Players view the goings-on at Callahan's from a first-person perspective, but instead of



The interface allows you to rotate a full 360° to look all around you.

How do we know this? Well, Josie has a futuristic chocolate brochure which bemoans the fate that befell the tree at the hands of that brutal pencil-making conglomerate, Faxon-Casderoga (Callahan's satire is nothing if not subtle). The player and Josie must somehow find a way to stop the deforestation before it's too late.

The second story has the player acting as a matchmaker for a Vampire. Pyotr, Callahan's resident designated driver, has tired of his centuries of loneliness and has returned to his Transylvanian castle. He plans to reunite with Sasha, his one true, yet lost love. The player must go in search of the forlorn vampire and play the role of Cupid.

The third story involves the alien Squish (not his real name, but that's what his real name sounds like). He feels overly guilty about his race's clandestine efforts to keep mankind's venture in space non-aggressive. They did this by placing a satellite in orbit which helped nullify the effects of testosterone, thus "gentling" the population. Now Squish wants forgiveness for his sins and Callahan's, as you might have guessed, is the place to be when a character thirsts for absolution. The player and Noah Gonzalez, head of the Suffolk County Bomb Squad, decide to take Squish's shuttle and destroy the satellite, thus allowing mankind to progress as intended. Once the player has completed these stories in any order, two new stories unfold.

The fourth involves helping out Al Phee, a mischievous time-traveling salesman, who's made a deal with the futuristic Dr. Duplicitous for psychic powers. Unfortunately, his newfound abilities are driving him mad. Now you must use Al Phee's TimeSled to confront the not-so-good Doctor and get the cure. The fifth story involves the linguistically-advantaged German Shepherd named Ralph Von Wau Wau, who has been kidnapped in the hopes of discovering the secret behind his abilities, even if it means a vivisection. The

player and Ralph's mute friend Joe must travel to Mount Weather to rescue the chatty canine.

Finally, when the player has completed all these quests, the Curator of the galaxy — silent up till now — pipes up, calling upon the player and the rest of the patrons to face the Galactic Council in a last-ditch effort to save the galaxy and everyone in it.

In your journeys, there's nary an action that you do that is not accompanied by some morsel of humor, be it mildly amusing or downright riotous. For example, clicking on a monkey calls up three options, querying the player as to what he or she would like to do to the monkey; "Look At," "Talk To" or "Spank." Unlike most adventure games that attempt to push humor *ad nauseum*, it's an extremely rare moment when Callahan's isn't downright funny. Though Spider Robinson's books did contain some humor, this interactive version of Callahan's is a non-stop laugh-fest. For the downtrodden computer nerds and hardcore gamers, this title offers plenty of inside jokes true gaming geeks will understand. For instance, after trying to collect an otherwise worthless piece of garbage, I got the message that "if this were an entertainment title, you'd get points for every little thing you collected...but it's not."

The graphics in Callahan's Crosstime Saloon are also top-notch, though not in a Quake or MechWarrior II sort of way. They're more or less high-res stills that have little or no fluidity, but instead of remaining staid, it adds a nostalgic, 1940s type of feel to it.

True to adventure gaming form, there are also plenty of puzzles wherein the player must collect objects and use them correctly later on. There is also the occasional brain-bender, though thankfully some come with hints. Unfortunately, these share much the same problem that many other adventure games have; namely, that they were just inserted into an adventure game without really attempt-

ing to seamlessly integrate them into the game's tapestry.

The voice characterization is good, although there were a few characters that could have definitely used some added coaching. Whoever did Guzman, the Brazilian pilot, hasn't watched nearly enough Univision nor done enough consulting with Juan Valdez, because it was one of the worst American-trying-to-sound-like-a South-American-with-a-broken-English accents that I've ever heard.

But these are more or less minor foibles and should in no way detract from the overall beauty of the game. Veterans will have no trouble breezing through this title. Then again, players shouldn't be buying Callahan's for the challenging game play, but should be looking at it from a value-added entertainment standpoint. Those players who don't take their adventure games too seriously, and can appreciate the humor found in such titles as *Full Throttle* and even *Monty Python's Search For The Holy Grail*, will definitely want to take a break from the day's labors and stop by Callahan's. Before you know it, the patrons will be welcoming you, arms outstretched, calling for the last round to be served, free of charge. 

OVERVIEW

HITS: Extremely hilarious with excellent graphics and uniquely intuitive interface

MISSES: Some of the voice-acting could stand a few more acting classes

THE LAST WORD:

For those who prefer to be entertained over challenged, this is the funniest adventure game this year.

Ratings

Dollar Value	29
Playability	18
Originality	8
Graphics	16
Sound & Music	7
Physical Components	7

OVERALL
85



REVIEW

Medium: **CD-ROM**
Developer: **Enteraktion, Inc.**
/Havokware
Telephone: **(310) 459-1262**

Supports: **Windows 95 & Macintosh**
Publisher: **LIVE-Entertainment/**
LLC Enteraktion, Inc.
Website: **www.LIVE-Entertainment.com**

The Arrival

by Andy Backer



**JUST WHEN YOU
THOUGHT CHAR-
LIE SHEEN HAD
SAVED THE EARTH**

from the alien goat creatures from outer space in the movie version of *The Arrival*, they're back with a vengeance in a science fiction adventure game. Often games adapted from movies or television series are merely exploitive and cheaply produced to make a few bucks, but such is not the case with *The Arrival CD-ROM Adventure*.

"Most games that are based on movies cheat players who spend good money on something they've already seen," says producer Tom Walsh, "Although we kept the same aliens from the movie, we set this game ten years in the future. Instead of aliens coming to Earth, as in the movie, the player must escape from *their* world." As for its being cheaply produced, 35 gigabytes of artwork is definitely not cheap. On the space station alone, there are more than 350 interactive environments for players to explore," Walsh elaborates. "When you add in three satellite outstations and the mining colony, there are more than a hundred other environments. Players will get their value from this game."

Both the game and the movie are about fawn-like aliens who want to superheat the Earth in order to both exterminate its human population and make it habitable for the aliens. Charlie Sheen saved Earth in the movie, and now it's the player's turn. When the story begins, the protagonist stumbles upon the alien's hidden bases in New Mexico. He is abducted by the aliens and transported to a space station orbiting a moon in a nearby solar system. Imprisoned, the protagonist's first objectives are to break out of his security cell and explore the station. "In the beginning, the player's only purpose is to escape. As the game progresses and the alien's plan is revealed, the mission of the player broadens," explains creative director Shon Damron.



An alien goat creature from outer space.

Unlike other science fiction adventure games, *The Arrival* places great emphasis on exploration and discovery, not fast reflexes. It is not another shoot-'em-up. "Everything the player

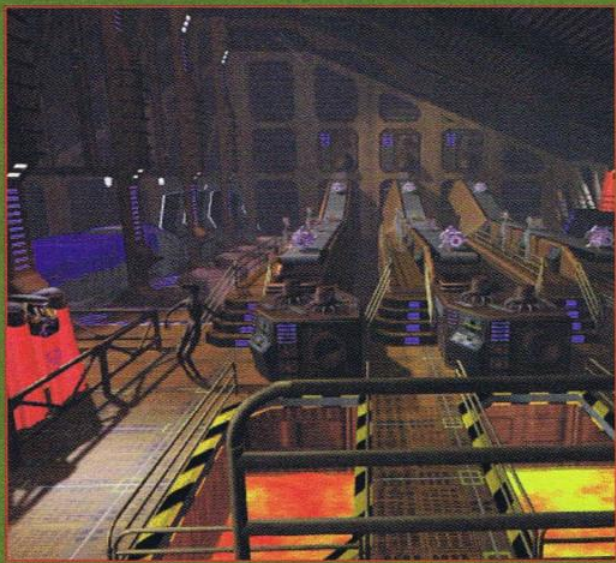
shelves are very slow in gameplay," says Walsh. "In *The Arrival*, players can move along quickly, with full-motion video shuttling them between each stop point. Non-linear design also frees them to look, turn, approach, touch and manipulate at will. It's a very tactile game."

The game encompasses over three CDs with eye-popping, first-person perspective graphics. Not only can the player character turn around a full 360°, but he or she is also able to look up and down. The interface is entirely mouse-driven. The player activates an icon from a menu wheel to perform an action, open the inventory, or get a description of an item or puzzle. There are hundreds of fascinating rooms to explore, each filled with wonderfully strange and alien objects. There are dozens of logic puzzles of variable difficulty to solve, and thousands of detailed sprite animations of aliens, robots and humanoids to admire.

**"The Arrival is
PURE
ESCAPISM."**

sees is fully functional; [there's] no window dressing," says Walsh. "Almost every robot, computer and control panel is accessible to the player and can be manipulated in some way."

The game is similar to *Mission Critical*, but plays much faster. "Other exploratory games currently on the



Some of the game's alien technology is even functional.

access code based on characters in the alien's language. Fortunately, a copy of the access code is hidden in the room.

Some obstacles need specific objects to overcome. A particularly obnoxious robot barring the protagonist's exit from a vent dissolves into a heap when infested with a jar of microbots. Finding the transformer which disguises aliens as humans or vice versa is of the

does not ensure that the protagonist will be able to save Earth. There are only a few ways to win the game and many more to lose. In the Control Center, for example, if players repeatedly click on the emergency airlock, it will eventually open and suck them into space. At the long-range transport a hangar, which is improperly depressurized, will cause their heads to explode. "Who says there's no humor in space?" chuckles Walsh.

The developers and artists have surrounded the player character with an amazingly weird alien technology. Not only candy for the eyes, all of the game's gadgetry is quite believable — some of it even functional! Only Frederick Pohl in his *Gateway* series of science fiction novels has even come close to creating alien gadgetry as strange yet plausible in construction.

The Arrival is pure escapism. There's no hidden agenda here (outside of making us more environmentally aware). Even though a significant number of people evidently believe that aliens *do* live among us, no one has yet claimed that these aliens are goats disguised as humans. The producers and developers have set out to build a purely entertaining, yet innovative adventure game based on a remarkable movie. They have more than met their objectives.

The Arrival should appeal to not only science fiction adventure fans, but to those who enjoy games that stretch the envelope of possibility and utilize the latest computer technology in so doing. The game is much more than satisfactory, it is one of the best of the year. Not only are its graphics spectacular, its game speed remarkable, its puzzles challenging, and its gadgetry credible; it also manages to tell a highly entertaining story as well. **CC**

OVERVIEW

HITS:

Graphics, sound, playability.

MISSES:

Solving parts of the game may be too difficult for some.

LAST WORD:

Science fiction at its best, an outstanding game.

Ratings

Dollar Value	27
Playability	17
Originality	9
Graphics	20
Sound & Music	10
Physical Components	9

OVERALL
92

All the numbers are large because the game is. The estimated playing time for an intermediate gamer is estimated to be 55 to 70 hours. And because the game is non-linear, using a multiple-threading storyline and associated endings, the game is never the same twice, thus increasing its replay value. The mission of the protagonist depends on the whims of the player.

Although the game was designed for players and genders of all ages, the puzzles are of variable difficulty. Many are based on those created by ancient Greek and Egyptian mathematicians. "Some of them are easy to solve if you know a trick. If you don't, they can take half a day," says David Yee, one of the puzzle-design team members.

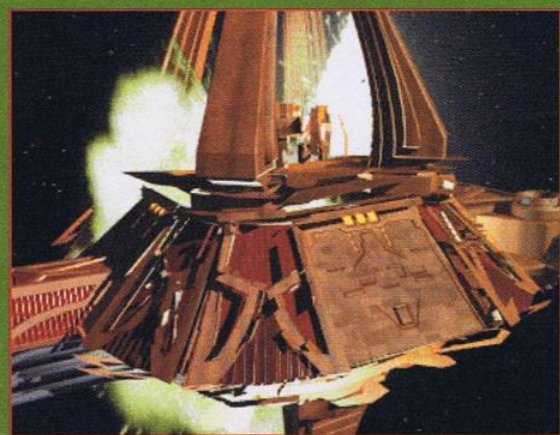
Puzzles are often encountered at locked doors, although not all locked doors have puzzles. Some doors can be opened with pass cards or access codes. The door to the player's cell requires an

highest priority for the player character to prevent discovery.

Music is heard only while a puzzle is being solved. "In contrast to space dogfight games, that seem to require accompaniment of Wagnerian scores, we wanted to place the player in a realistic ship environment — where the only sounds, for example, are the hum of a generator or air whooshing through a vent," says producer Joe Pasquarello. The sound effects pull the player into the environment, providing atmosphere.

As the player character moves through the space station, he gathers information from other prisoners. Some of the information is on self-playing video discs. One such disc is in the protagonist's cell. It seems that the aliens are developing a superweapon, designed to inject huge amounts of toxic gases into the Earth's atmosphere, thereby terraforming the planet for the aliens' benefit. The minerals necessary to manufacture these gases are being mined by the aliens — using robots and other abductees — at the mining colony beneath the space station. Whatever the player decides to do about the colony and station, s/he must first hack into the space station's computer and launch a shuttle.

After that, there are several possible outcomes, depending on the direction the player takes. Simply escaping the space station



Oops! Looks like sabotage.



REVIEW

Medium: **CD-ROM**
Developer: **Psygnosis (Paris)**
Telephone: **(415) 655-8000**

Supports: **DOS or WIN 95**
Publisher: **Psygnosis**
Website: **www.psygnosis.com**

The City of Lost Children

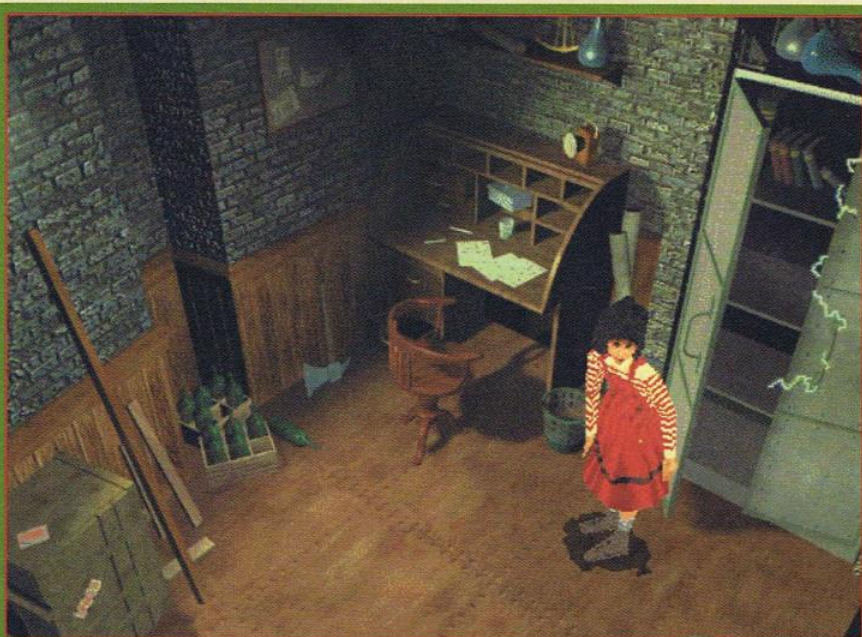
by Bill Holmes

IMAGINE THE MOVIES *Freaks*, *Oliver Twist* and *Beauty and The Beast* all rolled into one. Now toss in Monty Python's Terry Gilliam as Director to give it a surreal and twisted edge. Head spinning uncontrollably? Well, maybe it will begin to approach the weird and twisted vision of France's Jeunet & Caro. Their feature film *The City Of Lost Children* is a stunning mix of visual delights, unique camera angles, bizarre characters and morality at play.

Unfortunately, something was lost in the translation. What is a truly bizarre and surreal motion picture has been reduced to an atmospheric but ultimately pedestrian scavenger hunt. Not that that's all bad; consider that most adventure games don't even sport a truly unique atmosphere. But when game developers reduce a film like *Lost Children* to the level of a *Die Hard* or *Blown Away* — removing the plot as if they were trimming fat from a bone — the loss inevitably robs the story of its character.

The "lost children" in question stems from the movie where a mad scientist captures children, stealing their dreams via a strange apparatus within his futuristic laboratory. Our evil villain was created by a mysterious scientist during a cloning experiment gone horribly awry. Because he has no soul, he cannot dream for himself. Aiding him in this quest are six identical brothers — also clones — and an army of strange people called "Cyclops." Each of his minions has a converted optometrist's lens placed over one eye and an overly acute sense of hearing. The town where Miette, the central character, and the other orphans live is populated by remnants of a traveling circus that could only have been booked in the *Twilight Zone*. There's even a character of major importance who lives under water until....

What makes the movie so special is the methodology used to immerse the player in this weird world. When a Cyclops talks,



Unique lighting and shadow effects make every locale special

for instance, the player views the world as they do; through their infared-like lens. There are some amazing scenes where characters travel about viewing

**"What is TRULY A
BIZARRE AND SURREAL
motion picture film has been
reduced to an atmospheric
but ultimately pedestrian
scavenger hunt."**

the environment through the eyes of a trained flea, as it jumps from hand to arm to head. And there are inventions and strange machinery everywhere. Most of this, unfortunately, is not part of the game.

I was disappointed with how much of

the plot was excised for the sake of the game, and much of the film's humor is lost in the conversion process. The six clone brothers who constantly bicker (trying to determine who is the "original" that the rest were copied from) are omitted, and the importance of the diver is minimized to a seeming afterthought. The bizarre and evil Siamese twin headmistresses never leave the classroom. The pathetic yet sympathetic flea trainer is reduced to a cameo appearance, while the relationship between the oddball characters is nowhere to be found. Surely there could have been some way to keep much of this intact without complicating matters too much?

Speaking of Miette, here's a female protagonist for all of you players that have long demanded one. She's tough, cunning, brave — bordering on reckless, like most characters — and tender. Did I feel feminine during game play? Heck, no! But as independent and resourceful



Miette can explore the city if you can get her free

as she might be, there's precious little interaction for her here. In fact, most scenes show her wandering the streets alone until she comes across one of the characters she must interact with. No other street urchins, packs of demented Cyclops creatures, or children whisked away, although these occurrences are supposed to be quite rampant! Actually, with a couple of brief exceptions, there are no other children in the game besides Miette. Hard to be a ringleader when you have no ring to lead!

The relationship between Miette and One is obligatory at a superficial level, for the "brains" and "brawn" must cooperate in order to complete some of the key tasks in the game. But in the film One has a dominating presence, almost filling a co-starring role. He is first seen as an antagonist, then a protector, and finally — and in a fairly overt manner — a possible mate for Miette. This *Beauty And The Beast* relationship is especially ironic since Ron Perlman, who plays the part of "One" in the movie, played the "Beast" in the television series. In the computer game he is nothing more than a brute swatting down a couple of villains. A scene in which he is despondent over the assumed death of Miette is particularly pointless here, for while he almost dies along with her in the movie, in the game he is not even aware of her potential demise!

The combination pre-rendered backgrounds and motion-captured characters will immediately remind gamers of *Little Big Adventure*, a truly groundbreaking effort released a couple of years back. Unlike that game, which was set in a futur-

istic series of worlds, *Lost Children* balances the grimy Dickensian alleyways and docks of classic Old World Europe with circus freak characters and unrealistic scenarios. In a strange way, it works; the player is constantly jarred from one realm of substantive events to another. As the player gets started, there is no clear-cut path or objective, which can be frustrating for some. However, game play is simple enough; arrow keys direct Miette's actions, allowing her to pick up, release or use objects during the game. The beautifully rendered street and interior scenes are aided by the player's ability to switch camera angles at appropriate junctures. Although the streets and rooms are often cluttered with objects, a special pop-up window appears whenever anything of value is discovered. While this avoids the problem of continually trying to grab items that won't budge, it does reduce the hunt for objects to its simplest terms; a Geiger counter hunt for items of note.

On the plus side, characters don't have to be situated on a specific pixel to perform a task or grab an object — if the player is close enough for a mulligan, the character in question will shuffle into the proper position and commence climbing, turning, etc. Players may tire of the phrase, "I can't do anything," though. I wish all games possessed a complete cycle of responses for such denials so it wouldn't seem so redundant. The game isn't linear by nature, but certain objectives must be met to move the game and characters further along.

Those who won't see the film first (and let's face it, that's just about everybody) will probably be more confused than disappointed. Players may wonder why Miette stays in the orphanage to commit robberies for her tormentors when she seems intelligent enough to just keep running. The first sessions of the game

require some medium grade puzzle solving to proceed, but really has little to do with the endgame. Clues are easy to find and items that can be picked up are usually placed in plain sight. Although the inventory holds but ten items, it's fairly obvious which ones can be discarded after they are used. And don't forget the Golden Rule of Adventure Games; *when in doubt, talk to somebody!*

I do have to give credit where credit's due, and the look of this game is magnificent. While not as overtly bizarre as the film, *Lost Children* is a visual and atmospheric delight. The dark tones and odd characters combine to suck you into a world that combines the real with the surreal. Brick walls glisten with dampness, light bulbs flicker on and off from faulty wiring, and dark tones give everything a fatalistic charm. The music is eerie yet subdued, caressing your mind like a whisper as your eyes dance around the screen. The sound effects are well done — footsteps on gravel or hollow planks sounding as they should — a quality many games don't do well. I found myself getting caught up in the mood of the game despite my reservations about the plot.

Let's face it, adventure games are mostly scavenger hunts adorned in different costumes, elaborate puzzles that must be constructed properly to get to the climax. To its credit, *City Of Lost Children* dresses up the package better than most. Don't pick this up for intellectual stimulation or an advanced challenge. If you can put these criteria aside and just absorb the atmosphere, you'll enjoy the time spent in this odd little corner of your mind. **COC**



OVERVIEW

HITS:

Beautifully haunting atmosphere, fluid 360 degree motion, nonlinear.

MISSES:

May be too obtuse for some; many plot gaps even though based on film

LAST WORD: Don't worry about things like plot and logic, just enjoy the visuals. After all, it's just a scavenger hunt wrapped in a bizarre package!

Ratings

Dollar Value	25
Playability	8
Originality	18
Graphics	18
Sound & Music	8
Physical Components	5

OVERALL
82

Counterpoint.

A rebuttal to *The City of Lost Children* review



One of the most difficult challenges for game development companies today is to come up with unique content, and to create games that offer broad appeal to a wide segment of the consumer gaming market. In the early 90s, developers began to realize the capability of new technologies that would bring PC gaming to the forefront — whereas consoles had been the primary visual gaming platform for years. Everyone jumped on the bandwagon to create games chock-full of full-motion video (FMV). Without exception, everyone wanted to create that theatrical experience best realized in motion pictures. There were even direct game tie-ins and near-simultaneous launches of games and feature films. With more failures than successes, game companies began to reconsider the use of FMV in games.

Enter 3D graphics technology. Flexible, more affordable and capable of providing a realistic experience, quality 3D graphics

has become a must for today's games, no matter what genre.

From the onset, *The City of Lost Children* game was envisioned by Psygnosis to be a stand-alone interactive entertainment product, not a movie in game's clothing. Although the game was artistically inspired by Marc Caro, the movie's director — who ensured that the game's environments remained true to his artistic vision and creative genius — *The City of Lost Children* game was created by Psygnosis because of its potential to offer a totally immersive and surrealistic interactive gaming experience. It was because of this potential that Psygnosis' Paris development team sought out the movie's producers to license the game, rather than the other way around.

The City of Lost Children game cannot be compared scene-by-scene, character-by-character and location-by-location with the movie, as it was not developed for this purpose. Rather, whole new environments



by Laura McLeod
Product Manager

were created specifically in the game to create continuity and broaden the worlds of the characters, which were somewhat limited in 2D form in the movie. The ultimate challenge in the game was to create the 3D environments that would cinematically immerse the player, while leading him or her on a non-linear adventure. Over 30 characters were created using motion-capture technology for some of the most realistic character animations and group interaction ever seen in a game. Psygnosis has created an adventure game that offers all gamers a unique experience. Those that are familiar with *The City of Lost Children* film will enjoy a similar feel and recognize many of the characters, while avid adventure gamers should certainly appreciate the superb integration of the 3D animation with non-linear gameplay. Non-experienced gamers will be simply awed by the amazing 3D worlds and intriguing storyline. Simply put, *The City of Lost Children* game is a work of art, in itself and by itself.

CCE

THE PEN IS MIGHTIER THAN THE SWORD!

OKAY, YOU'RE OBVIOUSLY THE CONSUMMATE GAMER, able to hack and slash your way through most any game tumbling off the shelf. What's more, you've always fancied yourself a fairly decent wordsmith. Judging by that smile plastered on your face, you can probably tie together sentences better than some people... well, you get the idea. If that's the case, why not earn yourself a handsome income writing awe-inspiring articles for *Computer Game Entertainment*?

We're always on the lookout for skilled gamers capable of putting their thoughts, ideas and missives down on paper. While we don't expect to uncover the next Tolstoy, we are seeking energetic, organized and, above all else, computer-literate individuals that can readily demonstrate a strong command of the English language. Contributors to *CGE* are well-compensated for their efforts. In return, we expect well-written, thought provoking pieces submitted on a timely basis. Simple, huh?

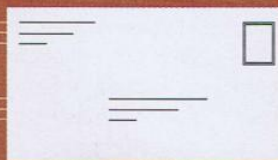
If you think you fit that bill, kindly send us a few samples or clippings of recently-published gaming articles. Make sure to attach a cover letter detailing your gaming interests, areas of expertise, and why you feel you could provide special insight into the world of computer entertainment. Please enclose a S.A.S.E. (self-addressed stamped envelope) if you'd like your material returned. We'll respond as swiftly as time permits. Good luck!

WHERE'S THE BEEF?

OUR READERS are always encouraged to share their concerns, however private, relating to computer entertainment. Feel free to rant, muse or even — dare we dream — calmly discuss whatever ails you about the magazine, games, game publishers or anything else you just can't seem to get out of your bloodstream. Without your input, we'll never be able to accurately gauge the immediacy or breadth of your problems.

There's any number of ways you can contact us. We regularly surf the major networks, maintaining an online presence on CompuServe (account # 105277,1340).

If you need to clear your head quickly, we can be faxed at (212) 695-9528, or you can reach us by telephone at (212) 252-1114, Monday through Friday, 9AM - 6PM, EST. Lastly, there's the good old-fashioned mail, which the US Postal Service is more than happy to drop off on our already-cluttered doorstep. You can write to us at:



Editorial Department
c/o Computer Game Entertainment
100 West 32nd Street
6th Floor
New York, NY 10001

Bear in mind that we reserve the right to edit, respond and/or publish anything sent to us. Therefore, we'd like to stress that you should try and remain careful, and most certainly tactful, in your communiqué. We'd like to remind you that there's a great big world out there, and *Computer Game Entertainment* is an excellent way to get your message, however philosophical, poignant or otherwise, across. So by all means, let's hear from you!



edutainment

REVIEW

Medium: CD-ROM
Developer: Sierra On-Line
Telephone: 503-343-0772

Supports: WIN 3.1, WIN 95 & Power PC
Publisher: Sierra On-Line
Website: www.sierra.com

The Time Warp of Dr. Brain

By Jim McCullaugh



WELCOME to the fourth installment of the widely popular and award-winning *Dr. Brain* series — and quite an exceptional installment it is. By comparison, 3D

chess is a cakewalk compared to many of the daunting puzzles, problems, enigmas, conundrums, entanglements, perplexities and riddles encountered in this title. Be forewarned: this title is definitely not for the intellectual faint of heart.

For the uninitiated, *The Time Warp of Dr. Brain* and, indeed, earlier *Brain* titles, are not like the majority of curriculum-based educational software on the market which teach math, science, or verbal skills. Most of those titles take a more straightforward linear approach to the subject matter in combination with some sort of quasi-familiar game engine. Not so with *Dr. Brain*. In fact, it's hard to completely pigeonhole *Dr. Brain* into any particular category. He has become his own hybrid of education, edutainment, logic and puzzle-solving.

The key is that *The Time Warp of Dr. Brain*, and earlier *Brain* titles, are based on The Theory of Multiple Intelligences as developed by Dr. Howard Gardner, co-director of Project Zero, psychologist, and Professor of Education at Harvard University. Gardner identifies the seven intelligences as verbal/linguistic; logical/mathematical; bodily/kinesthetic; visual/spatial; musical; interpersonal; and intrapersonal. He suggests that our culture places the most emphasis on the first two, but tends to neglect the last five. It's these last five that are woven heavily into the ten distinct puzzle areas (and ten distinct puzzle engines) of *The Time Warp of Dr. Brain* and gives them a much more conceptual, abstract gameplay and feel. It's not always obvious or intuitive what areas of the brain the game is looking for. But you also get a strong dose of the verbal/linguistic and logical/mathematical as well. Just don't look for smiling alien creatures

surrounded by numbers or letters to shoot down.

In the Beaver Dam Puzzle during the Tertiary Period, for example, Dr. Brain has assumed the role of a beaver building a dam. As you build dams across rivers during the early stages of the novice level, the game has an almost twitch-like, arcadish feel. But as destructive logs and roguish river denizens begin to beset your concrete citadel, you have to really bore down upon your visual/spatial and bodily/kinesthetic intelligence factors to pick up current patterns, log speeds and adjust accordingly. In the Primordial Soup Puzzle, Dr. Brain is a cell fighting for its survival set within a soupy prehistoric landscape. The user has to lead a group of cells through molten primeval ooze while avoiding destructive life forms. This experience is akin to chaos theory and taps into the interpersonal (group activities, interacting with others, cooperative efforts), visual/spatial (visuals of all kinds); and bodily/kinesthetic (games, sports, dancing, crafts, and other physical activities) intelligences. In the Caveman Rock Puzzle, Dr. Brain has become a member of a primitive band in the Quaternary Period. Playing an electric bass, the player has to teach the other band members their musical parts in the correct order. This puzzle addresses the musical, interpersonal, bodily/kinesthetic, visual/spatial, and logical/mathematical intelligences. The Gridlock Puzzle turns you into a near-futuristic traffic controller. Here the player is provided with a top-down view of futuristic roadways and urban vehicles, and their task is to program intersections so traffic moves smoothly and without collisions.

Sierra has also dramatically upgraded the look and feel of *The Time Warp of Dr. Brain*, compared with earlier *Brain* editions, with great looking 3D graphics,



Dr. Brain is his own hybrid of education, edutainment, logic and puzzle-solving.

Claymation-like animation, and excellent music and sound effects. A drop-down toolbar at the top of the screen is fairly straightforward to use, and can be lifted out of view to provide a full-screen representation during the puzzle-solving sequence. Dr. Brain, via microphone, gives you a verbal introduction and explanation to all the puzzles on-screen, while a detailed instructional booklet is included for reference. And you will need that. The zany but brilliant doctor is also on hand aurally with his usual wacky criticisms and barbs while you struggle to solve a puzzle. Examples: "You wouldn't smell defeat if you took a bath" or "With answers like that your brain could use a lube job. I have a coupon."

Think of it this way. The brain is a muscle. Why not give it a good workout? You won't find a trainer as unusual or as masterful as Dr. Brain.

OVERVIEW

HITS: Provides a fantastic adrenaline rush without killing anyone or anything

MISSES: Could be a bit too heady for some, even Brain-iacs

LAST WORD: Can more than 400,000 (estimated sales of Vols. 1-3) Brain-iacs be wrong? Not!

Ratings

Dollar Value	29
Playability	17
Originality	8
Graphics	19
Sound & Music	9
Physical Components	9

OVERALL
91



REVIEW

Medium: **CD-ROM**
Developer: **Microleague Multimedia**
Telephone: **(717) 872-2442**

Supports: **DOS or WIN 95**
Publisher: **Microleague Multimedia, Inc.**
Website: **www.mmi.com**

Pro Football '97 *Sports Illustrated* by David Herman



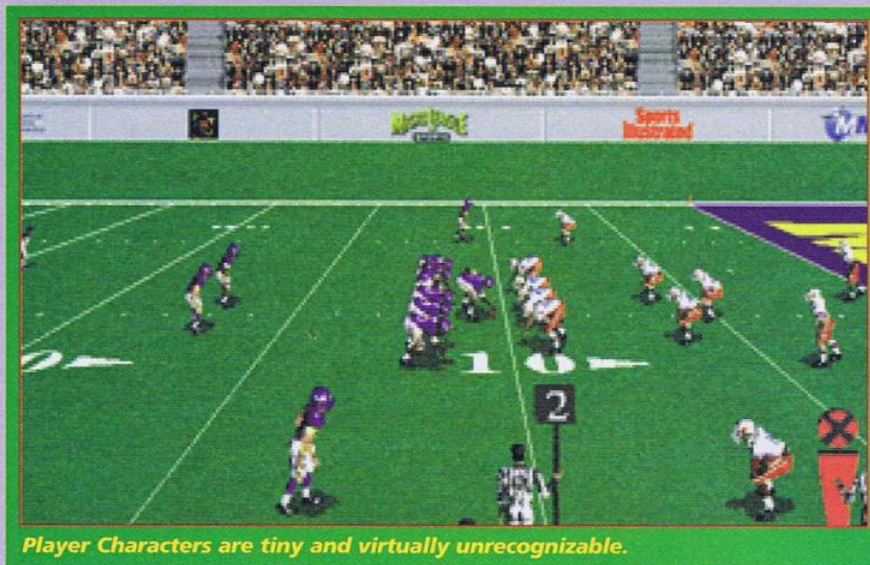
JUST TAKE A LOOK AT THE TOP COACHES

around the league; Bill Parcells, Dan Reeves, Mike Ditka, Jimmy Johnson. They've all recently switched teams for one reason; not only do they want to coach, but they want full control over all of the football operations and player personnel. Absolute power is the name of the game, whether it be taking the reins of an NFL franchise or a sports simulation. *Sports Illustrated Presents Microleague Pro Football '97* is a game designed to give sports fans just that; the ability to take control of their favorite NFL team — as either the head coach or general manager.

On a positive note, the game contains a multitude of options which permit players to customize just about any aspect of the game. For instance, the weather can be modified along with the resolution phase — whether the game will end with a tie, one overtime or a sudden-death shootout. Likewise, the player can choose the general game plan of the home and visiting teams, the type of NFL rules employed, and whether to simulate the use of player injuries. Players can improve their team by drafting new recruits from an abbreviated database of real NFL players available during the years 1991-1995. As a result, players can customize their team to fit their needs, building their rosters in accordance with a specific style of play. Players also have the option of drafting recruits using a budgeting schedule and even a draft clock. Finally, players have the added capability of making it all seem official by calling upon the Commissioner to announce each draft selection.

Even more options are available in the season play mode. Players can create custom-designed leagues and modify each team's schedule. Players can choose to run each game with or without animated sequences, the latter option obviously permitting for a quicker play of the season.

Unfortunately, while *Pro Football '97* exudes the NFL experience — providing



some semblance of control over every aspect of the game — it fumbles in the areas of playability and graphics. First, the exclusion of an NFL licence is constraining, forcing the player to pick teams such as The New York 747's, The Dallas Rangers or The New York Ogres. Moreover, in order to set up anything — including offensive and defensive plays, seasons, leagues or drafts — the player must laboriously thumb through a repetitive menuing system which slows gameplay to a veritable standstill.

Secondly, the animated graphics are choppy at best, while the player characters are tiny and virtually unrecognizable. Between downs, the player acts as the coach, deciding whether to select from a scripted set of plays or customize an entirely new play. After determining the play, the player sits back, watching tiny indecipherable characters run around the gridiron. The play sequence is viewed from a sideline viewing perspective, which makes it exceptionally difficult for the player to determine how each play is unfolding. Frankly, it was quite boring having to continually repeat the process of choosing a play, then watching it happen. Now I realize that it could've been because

I was playing with pretty unenthusiastic teams, watching helplessly as trick plays, end arounds and reverses never worked.

I guess *Pro Football '97* could be enjoyable if a player isn't interested in pursuing gameplay, preferring instead to experiment with the creation of leagues, trading players, and drafting of newer unseasoned recruits. The game's woefully inadequate attempt to control every aspect of a football team was uninspiring and, when combined with its unimaginative game playing sequence, made for a wholly forgettable simulation.

OVERVIEW

HITS: Ability to customize any aspect of the game.

MISSES: Clumsy menuing system, choppy animation, poor gameplay sequences

LAST WORD: Team owner wannabes might enjoy this otherwise unimaginative sim.

Ratings

Dollar Value	10
Playability	10
Originality	3
Graphics	8
Sound & Music	5
Physical Components	8

OVERALL

44



REVIEW

Medium: **CD-ROM**
Developer: **Mindsai Productions**
Telephone: **(800) 780-6044**

Supports: **WIN 3.1 & WIN 95**
Publisher: **Discovery Channel Multimedia**
Website: **www.multimedia.discovery.com**

Animal Planet

By Marc Dultz



IF, LIKE ME, YOU periodically enjoy surfing cable channels just as much as the Internet, then you've probably waded ashore on the beaches of

the Discovery Channel more times than you care to recall. A masterful feat of television programming, the Discovery Channel has for years taken an expansive yet intelligent approach to on-the-air production; for the most part breathing new life into oftentimes staid military subject matter and various next-generation, cyber-related issues.

The channel has established a huge on-air and online presence, gaining notoriety for televising the seductive *Wings* family of aircraft-oriented documentaries. To boot, they've also produced a variety of stylized informationally-intensive chronicles, routinely employed in the *Beyond 2000*, *Cyberlife* and *Next Step* series of next-generation and cyberspace addressing shows. The channel also airs a number of exceptional wildlife and outdoor-related programs, most notably the highly acclaimed habitat-examining *Animal Planet*. Like the *Wings* series before it, the *Animal Planet* series has undergone a metamorphosis of sorts, naturally inspiring and spinning-off a standalone CD-ROM multimedia translation for the computer format.

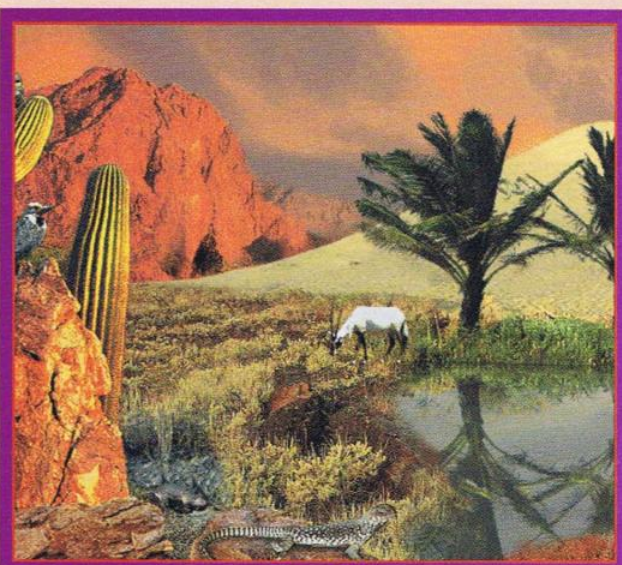
And inspiring it is. The *Animal Planet* draws heavily upon the television series, utilizing a mind-boggling array of video clips and exhaustively-researched data ordinarily presented in the televised medium or reference library. The viewer can "visit" any one of eight comprehensive ecosystems — everything from rain forests, deserts, grasslands, oceans, wetlands, polar regions, temperate forests to mountain regions. Each ecosystem contains a broad spectrum of aquatic, land and aviary-dwelling wildlife, portraying everything from the most common breeds known to

the most endangered species ever to be classified and studied.

The program's database is enormous, containing something on the order of 1,100 different types of animals. Each species has been indexed and classified accordingly, based upon each member's unique characteristics: physical description, size and weight, habitat, life cycle, food and prey, and known enemies. Indigenous to one of the eight aforementioned ecosystems, each animal's profile can be

accessed, either individually or in unison with other associated animals, collectively attuned to their natural habitat. Viewers can explore each of the fragile ecosystems, clicking on any of the desired regions sprawled across a smooth-scrolling, gorgeously rendered map. The interface employs an icon-driven toolbar — located at the bottom of the screen — which provides additional notes, helpful advice and what the program terms as an "Animal Tracker," which provides information on an animal-by-animal basis which parallels the ecosystem framework.

Also included is a "Bio Web" feature which essentially hyperlinks — via a modem and Microsoft's Internet Explorer or Netscape — to the Discovery Channel's World Wide Web resource site. Still other fantastically helpful features abound. For instance, younger viewers can call up a "Report Helper," which provides especially useful and pertinent information, in an intuitive question and answer format, which facilitates the creation and development of a school paper. Moreover, the "Field Note" feature permits viewers to cut and paste any file or component of the program, printing



The desert ecosystem as interface.

them out, in living color, for extra added value.

All in all, the CD-ROM version of *Animal Planet* serves as a dynamic learning tool, readily complementing any text- or video-based reference library currently available. Likewise, it represents a marvelous programming rarity; equalling, to great extent, some of the endangered animals it ably depicts and highlights. Melding breath-taking videos, panoramic still photos and incisive background data together into one, all-encompassing online wildlife encyclopedia, *Animal Planet* deserves a hearty thumbs up from every member of the animal kingdom's wide-eyed pecking order.

OVERVIEW

HITS: *Expansive database and video clips library*

MISSES: *Information on some species rather abbreviated*

LAST WORD: *Animal Planet provides exceptional value for the money.*

Ratings

Dollar Value	27
Playability	17
Originality	9
Graphics	18
Sound & Music	7
Physical Components	7

OVERALL
85

FIRE POWER: Communications Kills

by Tom 'KC' Basham

Not too long ago, I found myself on a commercial flight with very little to do, so I perused the obligatory onboard magazines. One article in particular caught my attention. The author in question made the case that communication isn't always the best way to solve an argument. In fact, when both parties are adamantly attached to their respective viewpoints, communication simply provides *more* opportunity to argue. The

ing that the players type text-heavy messages or tinker with scrolling message buffers in the middle of a knife fight. Useful communication drowns in inefficient messages and irrelevant conversation.

Subsequently, sim jocks flying cooperatively via modem, local area network, or even in an online

arena uniformly benefit from proper radio procedures just like their real-world counterparts. The

following discussion contains a few guidelines and tips for effective radio communication, but virtual squadrons should tailor the

following guidelines to meet their specific needs.

THE UNSPOKEN WORD

Aircraft-to-aircraft communications utilize verbal and non-verbal components. Although some situations require vocalized radio transmissions, pilots generally try to communicate as much as possible without ever keying the microphone. At close range, it's hand signals and head bobs; at long range it's wing rocks and turns. Pilots who work closely together generally establish a "con-

tract" before taking off. The contract ensures both pilots understand their roles during in-flight maneuvering. For example, one squadron might always state "wingman goes high." In any maneuvers requiring the wingman and wingleader to cross flight paths, both parties understand the wingman will fly above the wingleader. As a result, non-verbal communication requires extensive briefing and planning before the flight begins.

Obviously, pilots communicating via modem can't use hand signals or other body language to message the other players. Nonetheless, aircraft movement can still serve as an effective transmission medium, provided each pilot keeps an eye on his wing. Generally, non-verbal communication works well to turn the formation, and to regroup the formation after combat. For example, the wingleader may use wing dips to indicate which way he wants the wingman to turn. If the leader wants the wingman to turn right, he rolls the plane 90° to the right and holds the bank for a couple of seconds. The wingman, watching the banking maneuver, will then execute a right turn.

Now the question arises: how much should the wingman turn?

Does the leader want the wingman to execute a 180° turn? A 90° turn? The wingman has to watch the leader to determine exactly what to do next. Suppose the wingleader is on the right side of the formation and wants

to execute a *delay turn*. As illustrated in Figure 1, he dips the right wing at time 1. The wingman turns right toward the wingleader, while the wing-

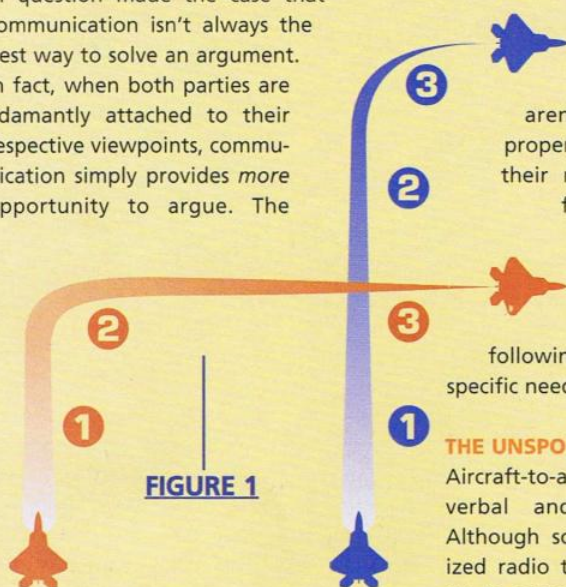


FIGURE 1

author made a very convincing point. Although stemming from a different problem, sometimes the modern battlefield also suffers from too much communication. Extraneous messages clog precious radio channels, increasing confusion and disrupting the flow of battle. Although the system inevitably breaks down, pilots practice precise communications procedures in an effort to maximize information while minimizing bandwidth.

With the explosion of multiplayer simulations, computer jocks are experiencing a similar situation. Although multiplayer simulations generally allow players to communicate via text messages, they generally prove to be too cumbersome, dictat-

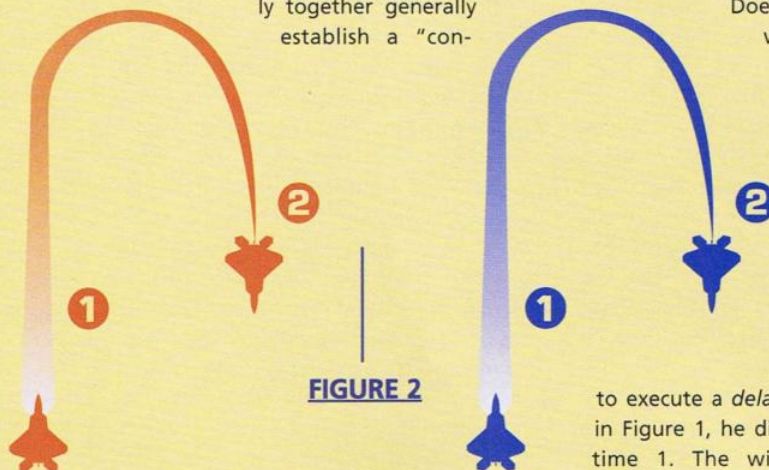


FIGURE 2

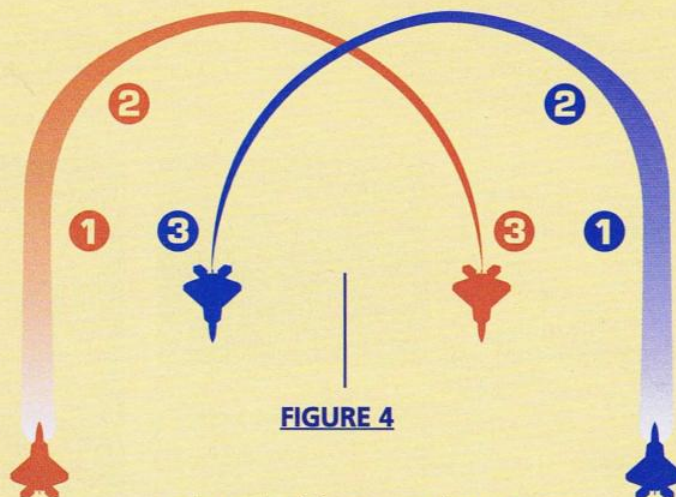
leader continues straight, as indicated at time 2. As the wingman crosses the leader's six at time 3, the leader turns 90° right and pulls line abreast of the wingman. The leader is now on the left side, with the formation intact on the new heading.

Now take a different example. As shown in Figure 2, the wingleader on the right side of the formation dips his wing to the right at time 1. As the wingman turns right, the wingleader likewise turns right. In this case, the wingleader wants to execute a 180° *in place* turn. The wingman executes a similar turn, eventually ending up line abreast with the wingleader with the formation heading on a new course 180° from the original heading.

If the leader wants to execute a *cross turn*, as shown in Figure 3, he again begins by dipping the wing to the right at time 1. The dutiful wingman obediently executes a right turn at time 2. This time, however, the wingleader turns left, toward the wingman. This signals the cross turn. The wingman — about to cross paths with the wingleader — executes the "altitude clause" in their contract and goes high, above the wingleader. At time 3 we find the leader and wingman again line abreast, heading the new direction.

After combat, the pair will likely find themselves separated or out of position. The wingleader can initiate a rejoin by repeatedly rocking the wings. Figure 4 illustrates a typical rejoin maneuver. At time 1, both the leader and wingman turn toward each other. As they approach each other, at time 2, the wingleader turns in the desired direction, while the wingman makes the corresponding turn to pull back into formation. The leader may order subsequent formation turns to get the pair back on the appropriate heading.

By defining the appropriate procedures beforehand, we see three possible formation turns executed without a single radio call. In each case, the leader dips his wing to start the wingman turning. Keep in mind, though, that just because the wingleader dips his wing doesn't mean the wingman was watching. He's also busy looking for bandits, operating aircraft systems, and flying his airplane. In general, the leader should initiate the command, then roll out and wait for a few seconds. If the wingman doesn't comply, repeat the



order again. After two or three attempts, the leader may have to resort to a radio call in order to get the wingman's attention.

YOU TALKIN' TO ME?

When the time comes to actually use a verbal radio call, remember three criteria: First, the intended recipient must be clearly designated. Second, the message must be clearly conveyed. Last, but not least, the message must be as brief as possible. Subsequently, real-world pilots have developed a system called *callsign, directive, descriptive* (CDD) format. In other words, each radio call contains three pieces of information: the recipient's callsign, what the leader wants the recipient to do, and, if appropriate, why. A typical example might be: "Chrysler 2, hard left, bandits 7." Anyone listening to this radio channel immediately knows this message pertains only to Chrysler 2. When Chrysler 2 hears his callsign, he knows to pay attention to the rest of the message. The directive tells the pilot to execute a hard left turn. The descriptive explains that there are multiple bad guys at Chrysler 2's seven o'clock position.

The majority of radio calls are informative in nature. In such cases, the "directive" portion usually consists of the word "continue." This directive tells the recipient to keep doing whatever he's doing, but important information will follow in the "descriptive" portion of the message. For example, suppose the bandit is parked on the leader's six, but the wing-

man is almost in position for a shot. The wingman — seeing that the bandit can't gain the angles necessary for a shot — may call, "Chrysler 1, continue, bandit stuck in lag." The leader now knows that his defensive turn is keeping the enemy at bay. The leader, though, knowing that he can't shake the bandit may call, "Chrysler 2, press, Chrysler 1 defensive." This tells the wingman to engage because the leader is in a bit of trouble.

When making clock calls, always include the words *left* or *right*, as appropriate. That may seem redundant considering that clock calls inherently include that information; however, it's amazing how often one hears "left, 2 o'clock" when the sender really meant "left, 10 o'clock" or "right, 7 o'clock" when he really meant "right, 5 o'clock." As long as the left/right part is correct, the number just tells the recipient how far to turn his head.

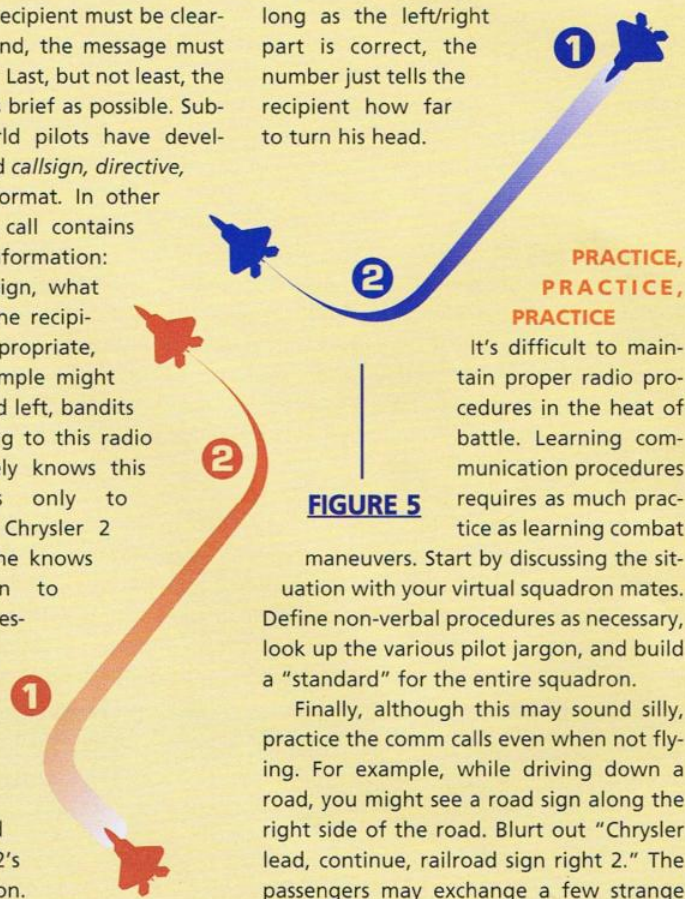


FIGURE 5

maneuvers. Start by discussing the situation with your virtual squadron mates. Define non-verbal procedures as necessary, look up the various pilot jargon, and build a "standard" for the entire squadron.

Finally, although this may sound silly, practice the comm calls even when not flying. For example, while driving down a road, you might see a road sign along the right side of the road. Blur out "Chrysler lead, continue, railroad sign right 2." The passengers may exchange a few strange looks, but radio practice is important. "Chrysler lead, hard left, blue Ford Taurus at 6" is another good example. Often, the hardest part of generating a radio call is simply building the appropriate words, in the appropriate format, in a timely manner. The more a pilot practices using the CDD format, the more proficient they become. ☺

GAME OVER?

Not by a long shot! Although we continually strive to provide the finest and most up-to-date coverage, the fact remains that some games still manage to elude us. Here's a quick look, then, at what you can expect to see discussed, in-depth, in our upcoming issue:

COVER STORY

Starcraft — While the next *Warcraft* iteration has been temporarily shunted to the back burner, Blizzard Entertainment is fast putting the final touches on their imminent and imaginative blockbuster, *Starcraft*. Taking full advantage of the *Warcraft II* real-time strategy game engine and then some, discover why *Starcraft* seeks to capture the hearts, minds and we dare say, wallets of every intergalactic gamer.



FEATURE STORIES

Flying Nightmares 2 — Tom "KC" Basham, one of our high-flying simulation experts, was recently invited to meet with the Eidos Interactive design team. Seated in tandem with game producer Bryan Walker, Tom learned all there is to know about Eidos' ground-breaking flight sim, which pays homage to the US Marine Corps. *Semper Fi!*



Pacific General — The fifth and final installment of SSI's battle-scarred "Five Star Series" pledges to be the best. The award-winning *Panzer General* wargaming system has finally been grafted onto the World War II Pacific Theater of Operations. Simple port? Think again. Together with a robust battle generator, *Pacific General* provides the most compelling reason to re-explore the hex-based wargaming craze. Find out why the *General* series looks to go out with a bang instead of a modest whimper...

Lands of Lore II: Guardians of Destiny — The long-awaited sequel to one of the most popular adventure games finally nears completion. Find out what new tricks Westwood Studios has up their sleeve, in a land in search of its ultimate savior!

PREVIEWS & REVIEWS

Read up on some of the more fascinating titles coming down and heading off the gaming turnpike. Our August issue includes sneak peaks at *Blood Omen*, *Redjack*, *Forgotten Realms*, *Viper*, *Mageslayer*, *Defiance* and lots more. Thinking about spending your hard-earned money on a game you know precious little about? Perhaps we can help. We'll be reviewing *Outlaws*, *Comanche 3*, *Fallen Haven*, *Birthright*, *The Last Express*, *Blood*, *Star Command*, *Power F1* and scores of other continually-arriving titles.

HINTS & TIPS

Having trouble coming to grips with *IM1A2 Abrams* or the latest flight sims? Our step-by-step guidebooks teach you everything from "reconnaissance-in-force" to force multipliers!

Care to see how the experts manage to "win the battle but lose the war?" In the August issue we debut *Warpath* — our feature-length, game-specific walkthrough — which takes you on a turn-by-turn analysis of one scenario from *Napoleon at Borodino*. Discover firsthand why Borodino ended up as one of Napoleon's bloodiest and costliest victories.

ADVERTISER INDEX

Company	Pages	Tele. No.	Internet Address
Avalon Hill	59	(800) 999-3222	www.avalonhill.com
Electronic Arts	8-9	(800) 771-3772	www.janes.ea.com
Columbia House	15	(800) 792-1000	www.columbiashouse.com
Discovery Channel Multimedia	17, 19, 21	—	www.discovery.com
Empire Interactive	23, 29	(800) 216-9706	www.empire-us.com
Gateway 2000	85	(888) 888-0287	www.gateway.com
GT Interactive	2-3, 42-43	(800) 305-3990	www.gtinteractive.com
Interactive Magic	31, 132	(888) 746-2442	www.imagicgames.com
Strategy First	11	(514) 846-4090	www.strategyfirst.com
Talonsoft	4-5	(800) 211-6504	www.talonsoft.com
THQ, Inc	13	(818) 591-1310	www.paximperiam.com
Topps	125	(815) 734-5822	www.topps.com
VGOL Online	131	(203) 761-6164	www.vgadvisor.com

The Ultimate Gaming Magazine

COMPUTER GAME ENTERTAINMENT

Punchline Publishing, Inc.
100 West 32nd Street, 6th Floor
New York, NY 10001

Phone: (212) 695-6366
Fax: (212) 695-9528
E-Mail: mail@cgentertainment.com

www.cgentertainment.com

Publisher: Phil Paisnel
Associate Publisher: Michel Kieselstein
Editor-in-Chief: Marc Dultz
Senior Editor: Tim Liebe

Contributing Writers:

Andy Backer, Sam Baker, Tom Basham, M. Evan Brooks, Ed Dille, Alan Fusco, Bill Holmes, Steve Honeywell, Robert Mayer, Jim McCullough, Shane Mooney, John Withers, Brian Workman

U.K. Correspondent: Jonathan Eves

European Correspondent: Klaus Trafford
Martin Murbach

Art Director: Ben Osto
Assistant Art Director: Walter Moseley

Production Manager: Steve Grogin
CD-ROM Programming: Byton Studios

Circulation Manager: Simon Kent
(212) 695-9526

Advertising Director (Eastern Region):

Bob Rosen
KQ & R Inc.
850 Seventh Avenue
New York, NY 10019
Tel: (212) 399-9500
Fax: (212) 265-0986

Advertising Director (Western Region):

Gene Brassett
The Brassett Co. Inc.
1737 Fairgreen Drive
Suite 100
Fullerton, CA 92633
Tel: (714) 525-8011
Fax: (714) 525-8048

Licensing & Foreign

Representative:

SNP Publishing
2H Raadhuisstraat
Enschede 7511AH
The Netherlands
(31) 53 4308 564

Distributors:

Kable News
(212) 768-1000
IPO
(800) 999-1170
Ingram
(800) 627-6247

Foreign and domestic reprints available

©1997 Computer Game Entertainment. All rights reserved. Reproduction without permission is prohibited. Unsolicited submissions become the property of Computer Game Entertainment.

All Gaming Industry LINKS At One Web Site!



www.vgol.com

Check out our
Homepage Contests!

What the Industry thinks.

"VGOL boasts a comprehensive directory of sites pertaining to every aspect of the Electronic Gaming Industry. We were hard pressed to prove them wrong."

-Net Guide,
Gold Site Award Winner

"Top Five Web Site"

-PSX Editorial Staff

"3 Star Rating"

-Yahoo Webhead

"A comprehensive and well designed data base of distributors, developers, manufacturers, new releases, trade shows, and job opportunities on the web. Video Games On-Line lives up to its claim."

-Webcrawler Select
Editorial Team

"Excellent as a Web
Integrated Strategic
Environment"

-WISE award, presented by
Mansfield & Associates

iF-22 RAPTOR™: FIRST LOOK, FIRST SHOT, FIRST KILL

REALISM THAT'S OFF THE CHART



Game includes **FREE**
Operational Navigation Chart of
Bosnia used by actual pilots!
Chart your course, plot your way
points, and experience the real-
ism of flying the iF-22 Raptor.

Fly the most lethal combat aircraft ever designed,
recreated with unprecedented realism. Fly the

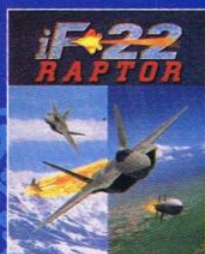
iF-22 RAPTOR

from Interactive
Magic. Experience the power of the F-22's
First Look, First Shot, First Kill capabil-
ity and next-generation avionics.

- ⊕ Unrelenting action and stun-
ning realism.
- ⊕ Truly dynamic campaign system—
never the same missions twice.
- ⊕ Point-and-click
active cockpit.
- ⊕ Modem and
network support.

⊕ Real terrain rendered from real-world elevation
data and digital satellite photography—so true
to the real thing that we'll give you a **FREE**
navigation chart for planning your attacks!

iF-22 Raptor is a trademark and Interactive Magic is a registered trade-
mark of Interactive Magic, Inc. All other trademarks are the property of
their respective owners. ©1997 Interactive Magic, Inc. All rights reserved.



©1997 Interactive Magic

Developed by

MAGIC



How the Future is Played™ www.imagicgames.com

To obtain a copy, visit your local retailer or order direct at 1-888-232-5839.

Interactive Magic, P.O. Box 13491, Research Triangle Park, NC 27709